

# CAREER PATHWAYS PROGRAMMING FOR ADULT LEARNERS IN CHICAGO, HOUSTON, AND MIAMI: FINAL REPORT

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# EXECUTIVE SUMMARY

## INTRODUCTION

This Institute of Education Sciences (IES) project (2015-18) examined how adult education providers in Chicago, Houston, and Miami are designing and implementing career pathways (CP) programming, especially for adults who are immigrants or have barriers to employment and education. The researcher-practitioner partnership included the Institute for the Study of Adult Literacy at The Pennsylvania State University and three community partners serving as liaisons for each city: Chicago Citywide Literacy Coalition, Houston Center for Literacy, and Miami-Dade County Public Schools.

The IES project included three research phases: (1) a survey of adult education providers; (2) focus groups with adult education providers; and (3) case studies of six programs (two per city). This report first presents the survey findings, followed by combined focus group and case study findings.

## SURVEY

### *RESEARCH QUESTIONS AND METHODS*

The purpose of the survey was to understand the landscape of adult education career pathways within and across Chicago, Houston, and Miami. The survey was designed to answer the following research questions:

1. What are the key features of adult education career pathways in each city, including student characteristics, program design and delivery, and data collection systems?
2. Which CP student outcome measures are most extensively used by adult education providers within and across cities?
3. Which measures (if any) are used by *all* adult education providers within and across cities?
4. What interim and long-term outcomes are adult education providers helping lower-skilled CP participants to achieve?

The confidential, web-based survey covered the following topics: organizational background information; student characteristics; program design and delivery; data collection systems and outcome measures; and aggregate student outcomes. All questions referred to the 2014-15 program year.

The sample included all known adult basic education (ABE) providers in the three cities (n=147). One hundred six agencies returned a complete (n=102) or partial (n=4) online survey, for a response rate of 72%.

For selected questions, we analyzed whether there were statistically significant differences (a) between cities and (b) between agencies that said they offered career pathways programming (CP), according to the Center for Law and Social Policy's (CLASP) definition (see p. 9) versus those that said "no" or "in development."<sup>1</sup>

As the first survey to analyze how adult education programs are providing CP programming in three cities located in three of the nation's large bellwether states, this report offers important insights that can inform local and national policy and practice.

## FINDINGS

### *Overview of adult education and career pathways in the three cities*

*Structure of adult education provision.* The structure of adult education provision differs markedly across the three cities. In Chicago and Houston, community-based organizations (CBOs) and community colleges are the primary adult education providers. In Miami, the main adult education providers are the public school district and a community college that also offers some four-year degrees. In Chicago and Miami there is a single, multi-campus community college system, whereas in Houston there are six separate community colleges.

*Organizational type.* The majority of survey respondents (58%) were CBOs, followed by school district adult education programs (22%). All of the school district programs were located in Miami and nearly half (48%) of the CBOs were in Chicago.

*Funding sources.* The most common funding sources were state government (57%), federal government (53%), and private foundations (51%). On average, agencies had 3.3 funding sources. Cities differed significantly in five types of funding; in each case Chicago agencies were more likely to use those funding sources. Chicago agencies also had a higher average number of funders than respondents from the other cities. Agencies that said they offered CP reported significantly more funding sources, on average, than those that said "no" or "in development" (3.5 vs. 2.4).

*Enrollment.* The agencies collectively served more than 282,000 students in ABE, high school equivalency or General Educational Development (GED®), literacy, English as a Second Language (ESL), or other types of adult education. The average was 2,799 and the median was 403 (see the findings for information about outliers).

Approximately 51% of all the adult education students participated in the following "core" CP classes and services: classes to transition to postsecondary education, to

obtain an industry-recognized credential, or to obtain a postsecondary or stackable credential; short-term certificate programs; internships; and apprenticeships. On average, programs served 1,445 CP students (median = 214). See note on outliers in the findings.

Although CBOs comprised the majority of agencies, their median enrollment (all adult education students) was much lower than that of postsecondary institutions, libraries, and school district adult education programs. Collectively, CBOs served a much smaller percentage of the overall adult learner enrollment.

*Provision of career pathways.* According to the CLASP definition, 83% of respondents said that they offer career pathways; another 11% are developing CP programming. There were no significant differences among cities. The types of organizations that offer CP were similar to the overall survey sample (58% CBOs, 22% school district adult education programs).

*Types of classes and services.* The most common types of CP classes or services were ESL (84%), employability or work readiness (76%), and classes to transition to postsecondary education (75%). However, the other “core” CP services, such as classes combining basic skills and career-technical education (CTE) or short-term certificate programs were much less common. Cities differed significantly in the percentage of agencies that offered high school/GED® diploma classes and classes leading to a postsecondary or stackable credential. Agencies that offer CP were significantly more likely to provide 12 out of the 15 classes or services, particularly career exploration or awareness, classes to transition to postsecondary education, and classes combining basic skills and CTE.

Of the 87 agencies that offer CP, 36% also reported zero students enrolled in the core CP services. This finding suggests that in these agencies CP may be less robust.

On average, agencies offered 7.5 adult education classes, services, or regular activities. Agencies that said they offer CP provided significantly more classes and services, on average, than those that said “no” or “in development.” Agencies in Miami offered significantly more services, on average, than those in Chicago or Houston.

*Individualized career pathways plans.* Among the agencies that say they provide CP (n=87), 61% formally assist students in developing their own, individualized career pathway plan.

*Occupational sectors.* Education, child, and family services (44%) was the most common occupational sector, followed by health and medical technology (38%) and information technology (30%). Cities differed significantly in the percentage that focused on education, child, and family services; information technology; building trades and construction; hospitality, tourism, and recreation; arts, media, and

entertainment; and manufacturing and product development. The latter was most common in Chicago; the other four sectors were more common in Miami.

### *Coordination and Planning across CP Providers*

*Opportunities for CP planning and coordination.* Only 36% of respondents said there were venues for CP coordination and planning across organizations in their city, and more than one-half were unsure. This suggests that there is limited awareness of CP coordination across different kinds of agencies at the macro (city) level. Of those who knew about mechanisms for CP planning and coordination across organizations, nearly 90% participated in these (Figure 18).

*Effectiveness of CP planning and coordination.* One-fifth of respondents believed that organizations in their city are “very effective” in working together to avoid duplicating CP services (see Figure 19) and in determining and filling gaps in CP services. Sixty-three to 64% thought they were very or somewhat effective in both areas, compared to 35% to 36% who thought they were slightly or not at all effective. There were no significant differences by city.

### *Student characteristics and demographics*

*Types of students served.* Agencies served a wide range of students, particularly unemployed or underemployed persons (90%), adults who struggle with basic skills (89%), and immigrants or non-native English speakers (87%). There were statistically significant differences between cities for the following student groups: unemployed or underemployed persons, parents/caregivers, out-of-school young adults, veterans, and inmates. Agencies that said they offered CP were significantly more likely to serve immigrants or non-native English speakers, parents or caregivers, out-of-school young adults, dislocated workers, and unemployed or underemployed adults.

*Demographic characteristics of CP students.* Agencies reported demographic characteristics of CP students as a sub-set of all their adult learners. Due to missing data and inaccurate reporting of some data on demographic characteristics and NRS levels (below), these findings should be interpreted as rough estimates.

CP students were disproportionately female, foreign-born adults with economic vulnerabilities and limited formal education. Salient characteristics were as follows:

- 59% women and 41% men
- 67% foreign-born
- Race/ethnicity of U.S.-born students: 57% Hispanic, 22% Black, 8% White, 7% Asian, 5% unknown, 1% other, <1% American Indian/Alaska Native or Native Hawaiian/Pacific Islander

- 44% received some kind of public assistance
- Employment status: 45% unemployed, 29% employed full-time, 19% employed full- or part-time (survey respondent did not specify), 7% employed part-time
- Educational attainment: 63% no high school/GED® diploma, 21% high school/GED® diploma, 6% some college, 10% postsecondary degree, 1% post-graduate degree.

*Student testing, classification, and enrollment.* Among the agencies that reported National Reporting System functional levels, about 63% of CP students tested at an ESL functional level and 37% tested at an Adult Basic Education functional level. About 69% of CP students placed at a beginning to low intermediate ABE or ESL level.

The majority (61%) of students were classified as enrolled in ESL classes, followed by ABE (22%), other (10%), and GED® (7%).

CP students were enrolled for an average of 228 hours (median = 128) and 19 weeks (median = 14.6).

### *Program design and delivery*

*Partnerships.* Respondents provided CP services jointly with many types of organizations, particularly CBOs (59%), social service agencies (44%), and workforce investment system organizations (40%). Cities differed significantly in the percentage that partnered with K-12 school districts, technical schools, and correctional institutions (all more common in Miami). Agencies had an average of 4.0 partners. Agencies that said they offered CP had significantly more partners, on average, than those that said “no” or “in development” (4.6 vs. 1.1). There were no significant differences by city in the average number of CP partners.

*Entry requirements.* For each of the classes or services in the survey, more than 50% of agencies reported having grade level, test score, or language entry requirements. These requirements were most common for classes to obtain an industry-recognized credential (86%), to access specific job opportunities (86%), and to obtain a postsecondary or stackable credential (85%). Agencies that said they offered CP were significantly more likely to have threshold requirements for job development services.

*Transitioning to the next step in the pathway.* Career counselors (54%) were the most common formal mechanism for transitioning adult education students to the next step of their career pathway, followed by written agreements or MOUs (49%) and formal referrals (45%). Cities differed significantly in the percentage that had career counselors; these were most common in Miami.

*Instructional approaches.* Contextualized learning was by far the most common instructional approach (81%), followed by concurrent enrollment (50%).

Transition/bridge programs were being developed by 13% of respondents. One instructional approach varied significantly by city: Miami had the highest incidence of co-enrollment with a community college or postsecondary institution. Agencies that said they offered CP were significantly more likely to use contextualized learning, concurrent enrollment, transition/bridge programs, work-based learning (i.e., using work-related problems and materials), and learning in the workplace.

*Support services.* The most common support services and programmatic features to help adults access and complete classes were tutoring or other academic support (80%), alternatives class times and locations (72%), and job search assistance and placement activities (68%). Agencies that said they offered CP were significantly more likely to offer ten out of 16 support services. On average, agencies provided seven kinds of support services. Agencies that said they offered CP provided significantly more support services, on average, than other agencies (7.8 versus 3.4).

## *Student Outcomes*

*Type of outcome measure.* Following CLASP's "Framework for Measuring Career Pathways Innovation," our list of 19 measures included interim and long-term outcomes. Interim outcomes are crucial because they capture achievements of entry-level participants who need more support and may need longer to achieve long-term educational and employment goals. On average, 32% of agencies measured the interim outcomes, compared to 37% for the longer-term outcomes.

The most common measures were educational level gains on standardized tests (85%), attaining a high school or GED® diploma (67%), and obtaining initial employment (55%). Agencies that said they offered CP were more significantly more likely to measure nine outcomes, mostly focused on employment, transitions, and CP credentials.

There were no common measures among providers within or across the cities, although 97% and 86% of Chicago and Miami agencies, respectively, used the same one or two measures. Chicago agencies were more likely to measure educational level gains (all but one agency measured this outcome). Miami agencies were more likely to measure obtaining a high school or GED® diploma. The diversity of funding sources (with only 53% receiving federal funding) may help explain the lack of common outcome measures.

*Outcome data verification.* The most common way to collect outcome data was self-report with verification, such as documentation from an employer (46%). Another 29% of the outcomes were self-report without verification, and 25% were reported by other institutions (e.g., Bureau of Labor Statistics wage records).

*Reporting data to other entities.* Forty-percent of respondents said that the data they reported in the survey was also reported to another adult education program (e.g., local school district or community college).



*Adequacy of measures.* Thirty-eight percent of respondents thought that their measures did “quite well” at capturing the gain and achievements of students with the weakest academic skills, compared to 34% for learners with the weakest English language skills and 24% for learners with the weakest employment skills. For each type of skill, 72% to 83% thought their measures did “somewhat” or “quite” well.

*Aggregate outcomes.* The outcomes with the highest average outcomes were educational gains on teacher- or program-created assessments (60%), educational level gains (51%), and initial employment (43%). Due to respondent variation in calculating the percentages of students who achieved program outcomes, these figures should be interpreted as rough estimates.

## CONCLUSION

The data show that over 94% of the adult education agencies that completed the survey offered or were developing CP programming. However, the configuration of CP services varied widely, and most of the “core” CP services were less common (e.g., classes combining basic skills and CTE, short-term certificate programs, classes to obtain industry-recognized, stackable, or postsecondary credentials).

Programs served adult learners who experience various kinds of economic and educational vulnerability, particularly immigrants, refugees, and adults who are unemployed or underemployed and lack a high school degree. At the same time, the majority of classes and services had entry requirements. This finding raises questions about how to ensure that adults with greatest barriers to education and employment can access CP programming.

Although there were no common outcome measures within or across cities, 85% of respondents measured educational level gains on standardized tests (an NRS requirement). Finding ways to measure interim training outcomes is crucial for capturing the achievements of learners who are a long way from reaching longer-term outcomes such as passing the GED® Tests, attaining a postsecondary credential, or finding a job.

## FOCUS GROUPS AND CASE STUDIES

### RESEARCH QUESTIONS AND METHODS

Data from focus groups with providers and organizational case studies were used to answer the following questions:

1. How do selected programs design and implement CP programming?
2. Within each city, which policies and practices shape (a) CP programming and (b) coordination across systems?



3. Which programmatic features, policies, and other factors contribute to student success?

Purposeful sampling was used to select five to seven providers per city. Three focus groups were held in spring 2016 with a total of 18 providers. Discussion focused on how policies and practices have shaped CP implementation and coordination in each city.

After a review of survey and focus group data and discussion with city partners, we selected two organizations per city that had exemplary CP programs, served students with lower educational attainment, and represented different organizational types, occupational sectors, student populations, and neighborhoods. The Chicago organizations were City Colleges of Chicago – Malcolm X College (healthcare) and Jane Addams Resource Corporation (manufacturing). The Houston organizations were Alliance for Multicultural Community Services (AutoCAD, Certified Nursing Assistant [CNA]) and two CBO sites for Houston Community College’s Community-Based Job Training Program: AVANCE (general office support specialist) and Chinese Community Center (CNA). The Miami organizations were Lindsey Hopkins Technical College (part of Miami-Dade County Public Schools; food, healthcare, automotive) and Miami Dade College (focusing on the grant-funded FICAPS [Florida’s Integrated Career and Academic Preparation System] program in construction and business).

Data sources included class observations; interviews with teachers, administrators, support staff, and key partners; focus groups with students; and document analysis. All focus group and interview data were audio-recorded and transcribed.

## *FINDINGS*

### *Program design and implementation*

The case study organizations varied widely in how they designed and implemented CP. The report highlights examples from four programmatic areas.

*Contextualized instruction.* All programs offered contextualized instruction, but used differing models. Most commonly, basic skills or bridge classes used occupational content to teach reading, writing, or math. By contrast, basic skills or GED® classes in two organizations were not contextualized, for varying reasons. In some cases, basic skills instruction was also embedded in CTE classes. With few exceptions, all the CTE classes included hands-on instruction and/or a lab, practicum, internship, or clinical rotation.

*Staffing models, staff coordination, and instructor expertise.* Case study agencies had different staffing models, including types of staff (three to six types of teachers and support staff) and whether teachers were in-house employees or

outsourced from other providers such as community colleges. The three programs that sought to improve students' financial stability all required participation in support services; as such, they hired job developers and/or employment, financial, or income support coaches, which created a more extensive, tailored support system.

Other differences included the degree of interaction between basic skills and CTE teachers (minimal to extensive) and basic skills teachers' occupational expertise (most had experience in students' CP sector, but City Colleges of Chicago's bridge curricula did not require language arts teachers to have industry expertise).

*Support services.* Wraparound supports are a key CP feature (Fein, 2012) that address common economic and social barriers to education and employment. Case study agencies provided a combination of services or referrals for childcare; transportation; access to financial supports; financial aid for tuition, fees, and supplies; veterans, homeless, disability, or inmate services; and other supports.

Case study organizations used two support service models: voluntary or bundled. Three organizations had an on-site Center for Working Families or Financial Opportunity Center, national models that require participation in two or more integrated support services, including financial coaching, employment coaching, and/or access to income supports. The other organizations also offered wraparound services. In particular, CP students at community colleges had access to supports for veterans, disabilities, tutoring, physical and mental health, financial aid, and other needs. However, non-bundled supports were voluntary, had eligibility requirements, or did not include financial literacy or counseling.

*Access for lower-level students.* One aim of the study was to determine whether and how students with no secondary degree or low reading, math, or English scores accessed CP classes. Two organizations and a special automotive program at a third organization required a secondary degree. Three organizations that admitted students without a secondary degree also had a minimum Tests of Adult Basic Education (TABE) score. By contrast, per Florida state policy, Lindsey Hopkins had an exit requirement for all but one of its CTE courses. This model enabled lower-level students to enroll and then demonstrate their academic or practice-based competence—a minimum TABE score or industry certifications, respectively—upon program completion. The case study data also indicate that some agencies do not track the percentage of students who progress from ESL, literacy, or high school equivalency classes to CP classes.

### *Practices and policies that shape CP programming*

Partnerships were central to CP programming, as were federal, state, and local policies that both aided and complicated how CP programs were designed and implemented.

*Partnerships.* Research participants considered partnerships essential for developing and delivering CP programs. Key partners included CBOs, educational institutions, workforce development partners, government agencies, employers, intermediary organizations, homeless shelters, and social service agencies, among others. Partnerships served varied purposes, including program and curriculum design and development; student recruitment; instruction; support service provision and referrals; in-kind donations; career exploration and job placement; CP training, professional development, and technical assistance; and assistance with transitions to postsecondary education or training.

Partnerships also brought challenges, including establishing and maintaining the partnership, difficult relationships with workforce development partners, time and resource intensiveness, accommodating each other's needs, competition for students, interpersonal problems, and differing student populations.

*Measurement and data collection.* Staff (focus group participants) in each city described measurement as a challenge. Enrollment, program completion, and educational functioning level gains were common measures, but these were viewed as incomplete or inadequate indicators of program success. Measures that reflect persistence and retention in programs and transitions in career pathways were deemed better indicators, but these outcomes were not typically measured.

Providers in each city identified a need for longer-term follow-up data on what happens to students after leaving their programs. However, these types of data are hard to collect because students in CP move across various institutions, usually with different funding sources and data collection systems. In addition, data collection capacity varied widely across providers.

*Policies.* Governmental and private funders' policies were cited as both aiding and complicating CP implementation. Dedicated resources for CP in each state (from foundations and/or government funding) have helped providers establish programs.

Miami providers cited several local (county or city) policies that helped CP programming, including those pertaining to correctional facilities, the school district, and local workforce development initiatives.

Helpful state policies included mandated career exploration and an accompanying skills inventory in adult education classes (Florida), a statewide bridge program requirement for ABE providers (Illinois), and joint reporting by adult education programs (Texas). Providers also identified problematic aspects of state policies such as rapidly increasing enrollment targets, duplication, and a narrow definition of job growth for immigrants.

WIOA was cited as the key federal policy that has shaped CP. WIOA has accelerated the establishment of CP classes, but some providers were also concerned about its narrow emphasis on employment and their ability to serve lower-level and undocumented students. Some also worried that changes to the English Literacy and Civics Education grant would tacitly encourage programs to serve higher-level students rather than the hardest-to-serve.

Funding policy challenges included some funders' unrealistic timelines and expectations, the state fiscal crisis in Illinois (2015-17), and the complications of combining funding streams.

Across the cities, providers described how they responded to policy and funding challenges by using creative, strategic thinking and problem solving. Otherwise, responses to policy varied across providers.

Providers' suggested policies to support CP programming focused on data collection (especially longitudinal) and data sharing (particularly across different systems and institutions) and developing a better infrastructure for coordination across providers.

### *Citywide CP Coordination*

*Mechanisms.* One aim of this study was to understand whether and how adult education organizations coordinate across systems to plan and implement CP. Coordination at the macro (city or regional) level is crucial because it helps to avoid haphazard CP planning, service gaps, and duplication, while also helping agencies communicate and develop a strategic, cohesive, systematic, citywide plan. Focus group participants identified six main mechanisms for coordination, which we categorized as micro, meso, or macro.

Micro-level coordination occurred between a few organizations and took two forms: (1) formalized partnerships and (2) informal coordination based on personal relationships between employees at two agencies.

Meso-level coordination included (1) agencies receiving the same grant, (2) networks and coalitions (e.g., literacy coalitions, community college consortiums), and (3) coordination within a large system such as a community college or Miami's school district adult education programs.

Macro-level coordination is citywide or regional and involves many organizations with different funders. Overall, we found more instances of micro- and meso-level coordination than macro-level. Illinois and Miami each have a group that works on state- or city-level CP coordination. However, none of the providers discussed how these macro-level efforts influence CP coordination in their city. Since city, regional, or

state CP coordination often involves senior administrators, more research is needed to assess program-level employees' awareness of and involvement in these initiatives.

*Current state of coordination.* During focus groups, providers in each city commented on the varying degrees of fragmentation and limited citywide CP coordination. They noted the lack of systematic, city-level mechanisms for communicating and sharing information, networking, and cohesive planning related to CP and adult education—especially across different types of providers (e.g., community colleges, CBOs, school district programs, workforce organizations). Details about the coordination mechanisms and needs in each city are provided in the report.

*Challenges to coordination and collaboration.* Providers mentioned other challenges in relation to CP coordination and collaboration, in addition to those already mentioned above. Competition for funding and participants (stemming in part from pressure to meet enrollment targets) was viewed as an impediment to referrals and collaboration among agencies. Second, gaps in services existed because CP is in its “infancy” (Houston), because of varied population needs across large geographic areas (Miami), or because it is difficult to transition students from high school to school district adult education programs (Miami).

### *Factors that contributed to success*

There is no single way to design a successful CP program, but the data suggest common features that can be adapted by other organizations.

*All sites.* All sites had caring, dedicated teachers and staff. On the whole, students were effusive about the helpfulness of teachers and staff in explaining course content and providing assistance.

Second, all agencies had strong, established partnerships that enabled them to provide the requisite CP components and supports and to help students transition to postsecondary education or employment. Strong employer partnerships were especially crucial for agencies that focused on job placement.

Third, support services were vital for helping lower-income students access and complete CP programs. Most agencies offered some form of case management to meet students' needs. The bundled support model offered more intensive and extensive supports, especially financial ones (e.g., credit-building products, credit review, financial counseling)—in some cases, for a lifetime.

Fourth, every agency offered some combination of free or low-cost classes, financial aid, or financial incentives, all of which helped students enroll and persist in classes.

*Two or more sites.* Factors that contributed to success at two or more sites were as follows. Several programs had particularly effective mechanisms for enabling students to earn college credits as part of a non-credit CP program (e.g., taking free credit classes, earning credits for passing industry certifications) or to find jobs (e.g., individualized job placement and coaching, assistance with job retention).

Vocational instructors at all but one organization had experience working in the industry sector related to their class. Having “industry insiders” and teachers who “speak the language of the employer” contributed to these programs’ success.

Bridge classes and multiple entry points helped students with low test scores or no secondary degree to access CP instruction and offered a clear progression from basic skills classes to either higher-level CTE classes or college credit classes. Three programs provided classes and instructors at community-based or institutional sites (e.g., jails, shelters, rehabilitation agencies), which is another strategy for helping high-need adults access CP programming.

Finally, data from the two community colleges reveals that CP programs can foster a college student identity by holding classes on campus and giving non-credit CP students access to the same resources as college students.

*One site.* Distinctive practices also promoted success at individual case study agencies. Each of these practices could be adapted to other CP programs, depending on their goals, design, curricular focus, and other components. One organization integrated departments that previously worked separately, a change that was credited with improving student outcomes.

Another organization developed contextualized language arts curricula that can be taught by Bridge instructors without content-area expertise in the targeted sector.

One agency used exit rather than entry requirements for a CP class. To graduate, students had to score 9.0 on reading and language and 10.0 on math (TABE) or pass industry certifications, depending on their program of study. This approach allowed lower-level students to enroll, while also enabling them to master the required content.

At another agency, staff deemed the simulated work environment a key to success. The “shop environment” entailed clocking in and out, adhering to strict attendance and tardiness policies, and assigning students roles such as shift manager. This agency also used a peer teaching instructional model that enabled students to share knowledge and course material, and teachers to manage open enrollment classes.

Finally, one organization offered a paid internship at an automotive training center (a luxury car dealership); program graduates had very high job placement rates.

## *IMPLICATIONS*

### *Access to and Progression through Career Pathways*

Providers need to ensure that English learners, adults without a secondary degree, and students with low test scores can access substantive CP classes and that there is a clear progression from entry-level basic skills classes to higher-level CTE classes. Bridge classes and multiple entry points are especially important ways to enable higher-need students to enroll in classes with CP content.

Minimum threshold requirements may hinder the adults who most need career pathways from accessing these services. As such, providers should consider what entry requirements are needed to understand the course material, complete the program, and prepare for postsecondary education or employment. Exit requirements may be a viable alternative, depending on the curricular content and program goals.

Similarly, programs should track whether and how entry-level students are advancing through the course sequence, from ESL, ABE, or GED® classes to higher-level CTE classes.

### *Support services*

Wraparound supports are essential for helping students enroll and persist in CP programs. These services not only mitigate barriers such as transportation and child care, but also mental and physical health, housing, food, financial, and other concerns. Support services decrease the cognitive load of poverty and increase students' mental bandwidth for focusing on their education. Programs should also ensure that counselors, coaches, case workers, and other staff have manageable caseloads.

Bundling support services appears to be an effective way to meet students' needs and enhance their financial stability, particularly through screening for income supports, financial coaching and literacy, job coaching, and access to financial services and credit-building products.

Funders and policy makers should consider increased funding for support services that address students' non-academic concerns. These supports should help increase persistence and program completion, thus enhancing program outcomes.

### *Outcome measures*

For pathways to be effective, organizations need measures that capture interim outcomes toward longer-term goals such as completing a degree or obtaining a job. Interim outcomes are especially important for showing the achievements of students with greater barriers to education or employment. Policymakers and funders should support the development and use of interim outcome measures.



The finding that there were no shared measures or “performance metrics” (CLASP, 2014) within or across cities underscores the need to identify a few basic measures that can demonstrate CP outcomes, thereby showing “collective impact” (Kania & Kramer, 2011; Kramer, Parkhurst, & Vaidyanathan, 2009).

Policymakers and funders should ensure that accountability measures do not unintentionally incentivize programs to serve students who can transition more quickly to postsecondary study or employment. Also, timelines and expectations for goal attainment need to reflect students’ abilities and situations, such as immigrants who have never worked in an English-speaking environment, ex-offenders, or chronically unemployed adults.

### *CP coordination*

Research participants underscored the value of existing mechanisms for coordination such as literacy coalitions and grantee networks. Overall, macro-level (citywide) coordination involving diverse institutions was limited. To minimize gaps in services, duplication, and competition for students, funders and policy makers can support the creation of groups, events, or initiatives that help CP providers coordinate their efforts.

With WIOA legislation, greater coordination and stronger relationships between workforce and adult education organizations is imperative. The study suggests that rifts can exist between providers, evidenced by reluctance to refer clients or list adult education programs as approved providers. Funders and policy makers can play a key role in helping workforce and adult education entities collaborate on CP programming.

### *Future research*

The findings raise questions for future research about topics such as the kinds of occupational expertise that basic skills teachers do (or do not) need; how programs determine entry requirements; relevant interim outcomes for CP programs (especially those focusing on job placement); how program performance measures influence the types of students that enroll; whether support services increase student retention, completion, and transitions; the effectiveness of bundled versus voluntary support services; the longitudinal employment, educational, and social outcomes of adult education CP programs; how urban CP programs can best plan and coordinate across organizational types and funding sources at a citywide scale; and how teachers and staff at the program level can inform macro-level CP planning and coordination.

Given the paucity of research on CP in adult basic education, we encourage more studies that focus on adults who face the greatest barriers to education and employment.



## INTRODUCTION

This Institute of Education Sciences (IES) project examined how adult education providers in Chicago, Houston, and Miami and incorporating career pathways (CP) programming, especially for adults who are immigrants or have barriers to employment and education. Our researcher-practitioner partnership included the Institute for the Study of Adult Literacy at The Pennsylvania State University and three community partners serving as liaisons for each city: Chicago Citywide Literacy Coalition (a literacy consortium), Houston Center for Literacy (a literacy consortium and direct service provider), and Miami-Dade County Public Schools (one of the two main adult education providers in Miami). These community partners had previously participated in the U.S. Department of Education's Great Cities Adult Education Great Cities Summit Project (2009-11).

The IES project included three research phases, each of which informed the next phase: (1) a survey of adult education providers in the three cities; (2) focus groups with selected adult education providers; and (3) case studies of six programs (two per city).

The report begins with survey findings depicting the status of CP in each city in 2014-15, followed by findings from the focus groups and case studies.

## SURVEY OF ADULT EDUCATION PROVIDERS

### SURVEY PURPOSE AND RESEARCH QUESTIONS

The purpose of the survey was to understand the landscape of adult education career pathways within and across Chicago, Houston, and Miami. Specifically, the survey was designed to help answer the following research questions:

1. What are the key features of adult education career pathways in each city, including student characteristics, program design and delivery, and data collection systems?
2. Which CP student outcome measures are most extensively used by adult education providers within and across cities?
3. Which measures (if any) are used by *all* adult education providers within and across cities?
4. What interim and long-term outcomes are adult education providers helping lower-skilled CP participants to achieve?

## SURVEY TOPICS

Designed collaboratively by the research team, the survey covered the following topics:

- background information on the organization;
- student characteristics;
- program design and delivery;
- data collection systems and outcome measures; and
- aggregate student outcomes.

All questions referred to the 2014-15 program year. Many questions included an “in development” option, enabling respondents to indicate which programmatic and curricular initiatives were underway but not yet implemented. The survey was pilot-tested with several practitioners, including a data expert for a large, multi-site adult education program, and revised accordingly. Survey questions are listed in Appendix A.

## SAMPLE AND SURVEY ADMINISTRATION

The sample included all adult basic education providers in the three cities. Of the 184 agencies, 62 were located in Chicago, 77 in Houston, and 45 in Miami. This list was compiled by the city partners and included all organizations that were known to provide adult basic education services, including community colleges, libraries, community-based organizations, workforce development organizations, K-12 schools, correctional institutions, and other types of organizations. Because we wanted to know how *adult basic education* agencies are incorporating career pathways, the list of providers did *not* include organizations that serve only or primarily (a) in-school youth or (b) adults who already have a postsecondary degree.

The confidential, web-based survey was administered by the Social and Economic Sciences Research Center at Washington State University, using strategies proven to increase response rates. Respondents received a letter with a \$2 bill and explicit instructions for completing the survey. Survey respondents had the option of entering a raffle to receive one of five \$50 gift cards. We also held a free, national webinar to explain the goals of the project and steps for survey completion. Follow-ups included emails, phone calls, and letters reminding respondents to complete the survey.

One hundred six agencies returned a complete (n=102) or partial (n=4) online survey, for a response rate of 72% (see Table 1).<sup>2</sup>

**Table 1: Survey Response Rate**

	Chicago	Houston	Miami	Total	Counted toward response rate?
Completed	32	34	36	102	yes
Partially completed	2	1	1	4	yes
Refusal	1	1	0	2	yes
No response	17	19	3	39	yes
Ineligible	3	15	2	20	no
Other	7	7	3	17	no
<b>Total</b>	<b>62</b>	<b>77</b>	<b>45</b>	<b>184</b>	
<b>Response rate</b>	<b>65.4%</b>	<b>63.6%</b>	<b>92.5%</b>	<b>72.1%</b>	<b>106/147</b>

## OVERVIEW OF ADULT EDUCATION AND CAREER PATHWAYS IN THE THREE CITIES

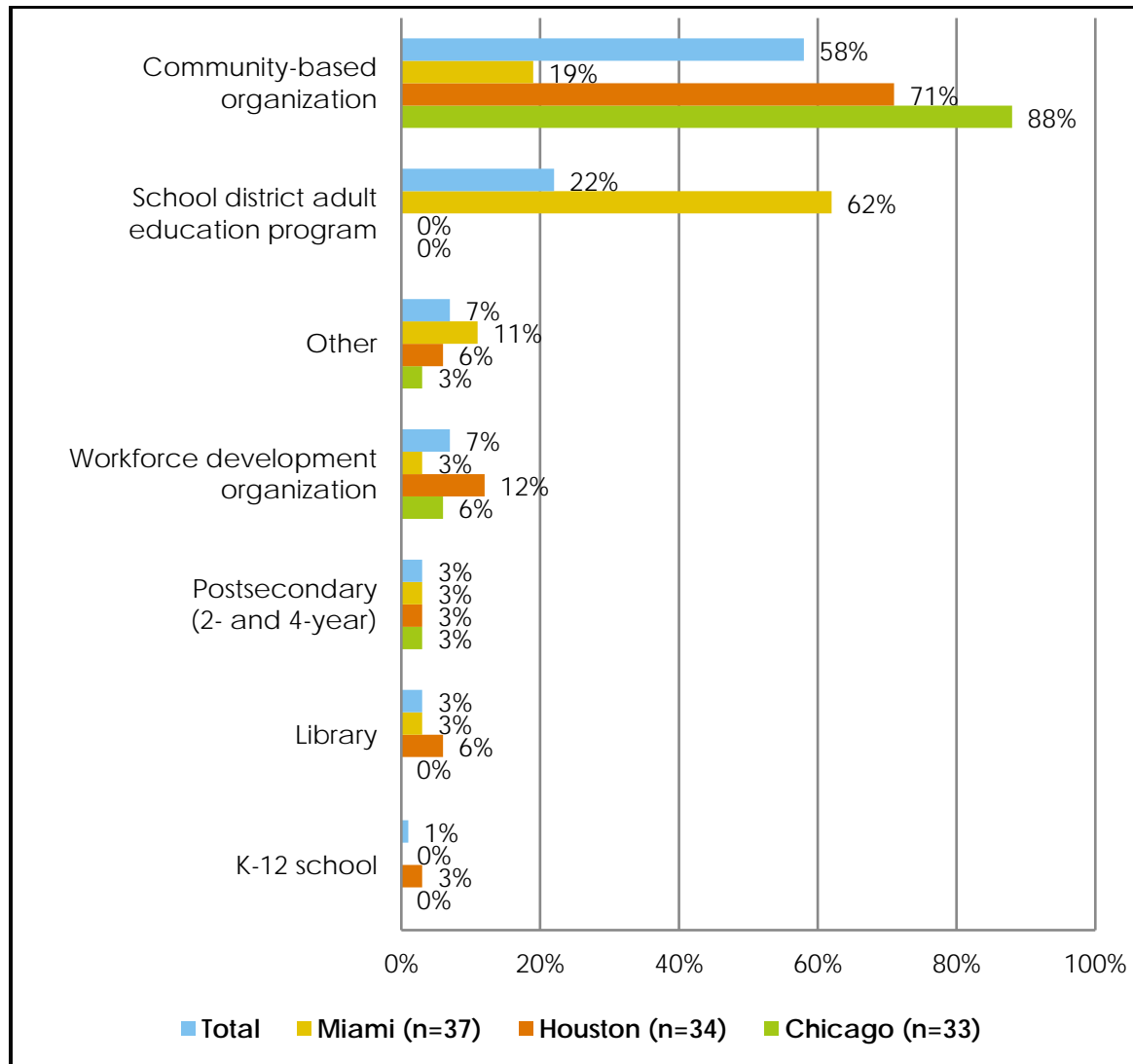
### ORGANIZATIONAL TYPE

The structure of adult education provision differs markedly across the three cities.

- In Chicago and Houston, CBOs and community colleges are the primary adult education providers.
  - In Chicago, there is one public community college system with seven campuses.
  - In Houston there are six public community colleges, all of which have multiple campuses.
  
- In Miami, the main adult education providers are the public school district and Miami Dade College.
  - Miami-Dade County Public Schools (MDCPS) operates adult education programs at more than 20 sites, most of which are called “adult education centers” or “technical colleges.” All the school district adult education programs in the survey were located in Miami.
  - Miami Dade College (MDC) has eight campuses. More than 96% of MDC’s enrollments are in Associate, adult education, and certificate programs, but MDC is classified as a 4-year college because it offers some bachelor’s degrees. There are no other public community colleges in Miami.

Every type of adult education provider in the three cities was included in the survey sample. The majority of survey respondents (58%) were community-based organizations (CBOs).<sup>3</sup> Nearly half (48%, n=29) of CBOs were located in Chicago.

**Figure 1: Type of Organization (n=104)**



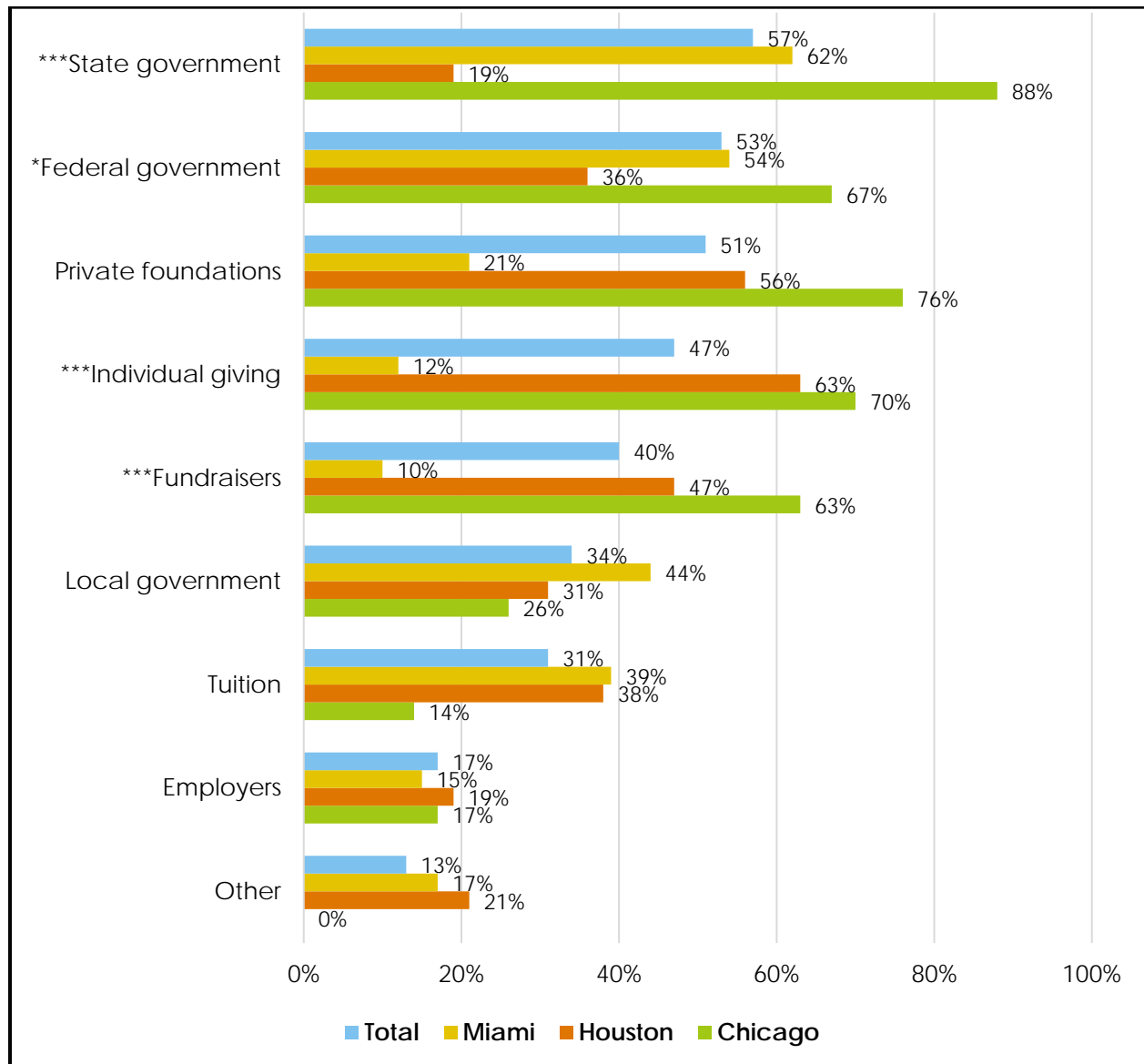
Respondents in the “other” group categorized themselves as correctional facilities (n=2), homeless shelters (n=2), and one each as a housing development, local government entity, and a professional development center for teachers.

### FUNDING SOURCES

The most common funding sources were state government (57%), federal government (53%), and private foundations (51%; see Figure 2). Other funding sources are listed in Appendix I. The diversity of funding sources helps explain the lack of common outcome

measures, discussed below. For instance, if all programs received federal funding, they would have to report some of the same outcomes (e.g., educational level gains). Cities differed significantly in the percentage that received funding from federal and state government, private foundations, fundraisers, and individual giving.<sup>4</sup> Each of these was most common in Chicago.

**Figure 2: Funding Sources (n=40 to 101)**

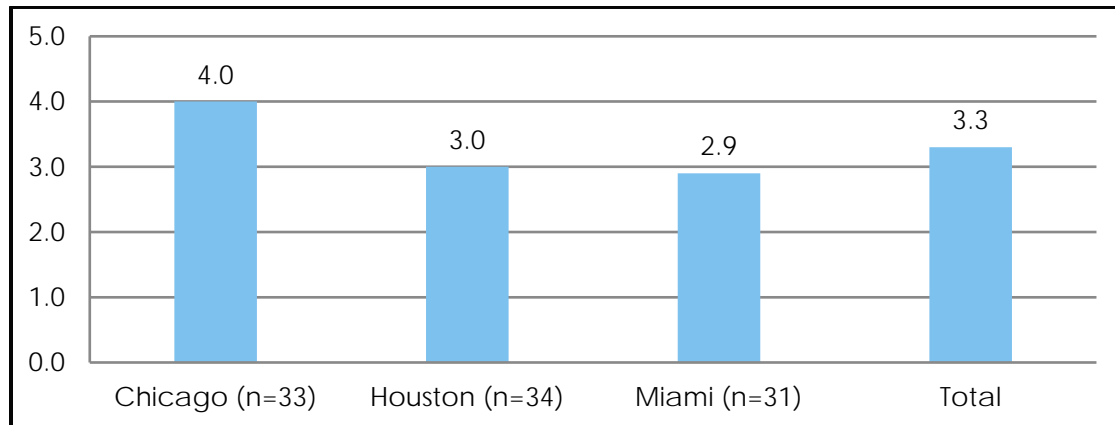


\* $p \leq .05$ ; \*\* $p \leq .001$

Agencies had 3.3 funding sources, on average (median = 3). The average number of funders was significantly higher for Chicago agencies than for those in Houston or Miami ( $p \leq .05$ ; see Figure 3).

Agencies that said they offered CP reported significantly more funding sources, on average, than those that said “no” or “in development” (3.5 vs. 2.4,  $p \leq .05$ ).

**Figure 3: Average Number of Funding Sources by City**



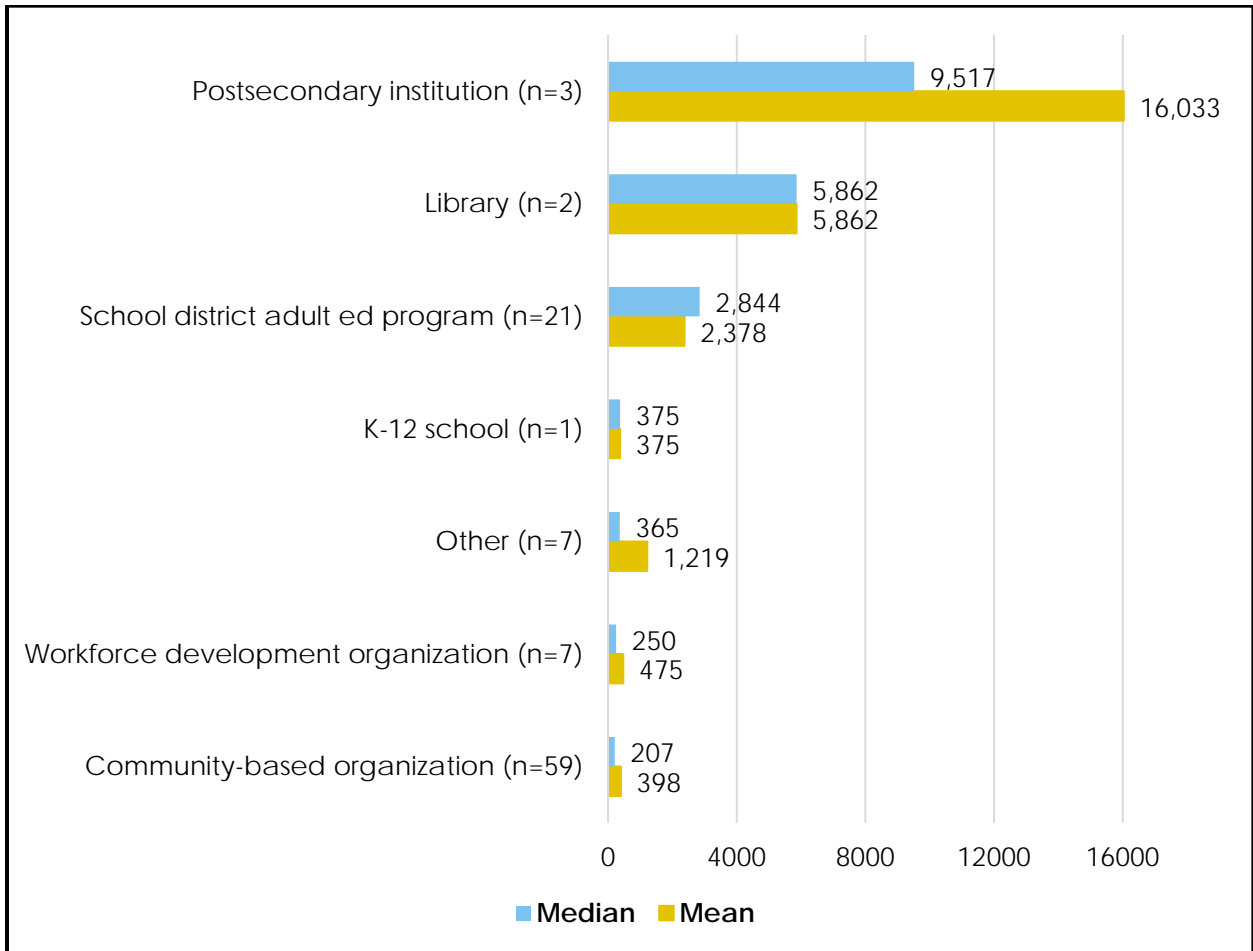
### ENROLLMENT

In 2014-15, the agencies collectively served more than 282,000 students in adult basic education, GED®, literacy, ESL, or other types of adult education. The average was 2,799 and the median was 403. These figures were skewed by an outlier, a library system that reported serving 127,677 adult learners, including those who participated in one-time workshops and drop-in educational services, in addition to more traditional classes.<sup>5</sup> Deleting this outlier reduced the average enrollment to 1,530 and the median to 389.

Approximately 51% of adult learners participated in the CP classes and services listed in Figure 8 (below). On average, programs served 1,445 CP students (median = 214). If we exclude the library outlier, the average CP enrollment was 569 and the median was 209.

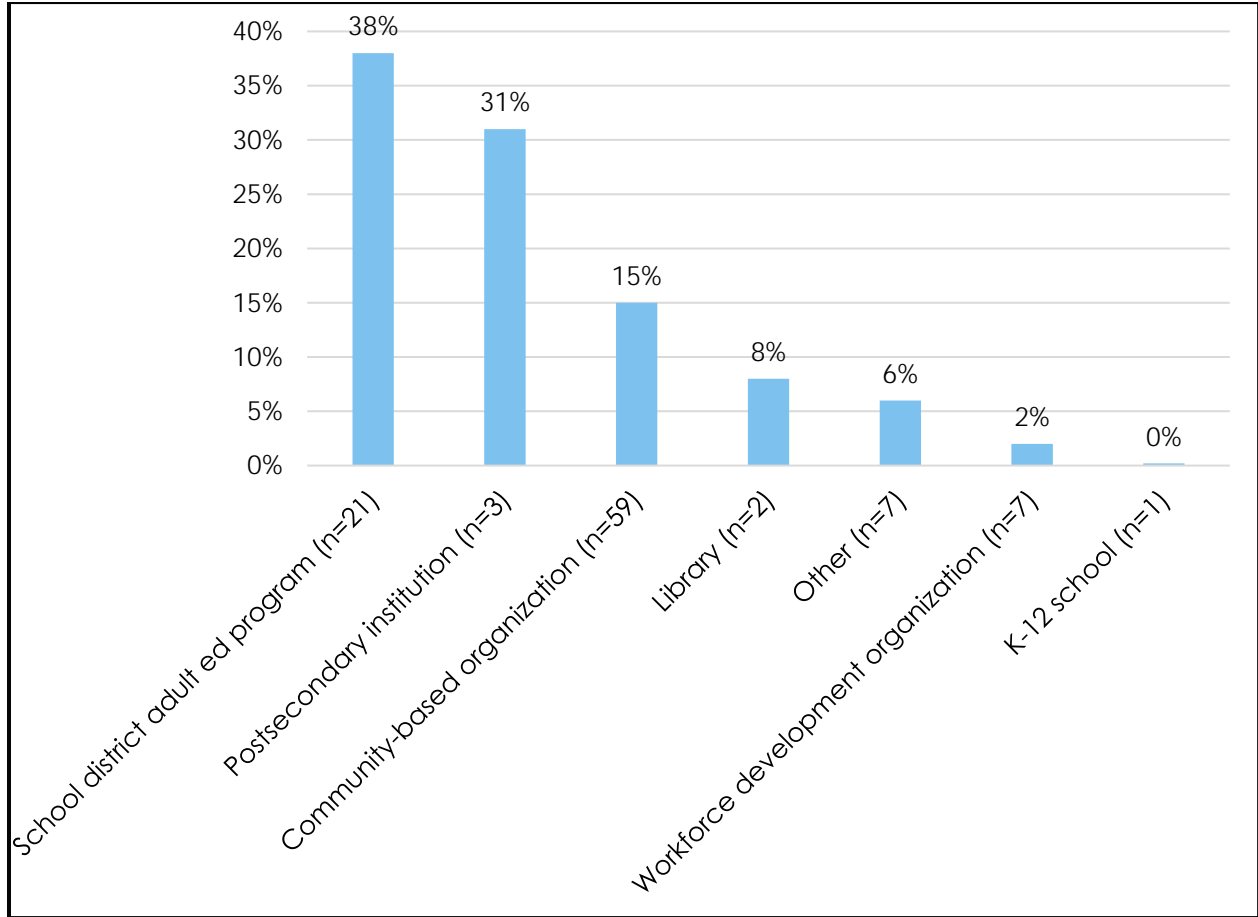
CBOs comprised the majority of agencies, but their median and average enrollment (for all adult education students) were much lower compared to postsecondary institutions (two- and four-year colleges were combined for analyses), libraries, and school district adult education programs in Miami (Figure 4). The chart in Figure 4 excludes the library outlier.

**Figure 4: Median and Mean Enrollment by Organizational Type**



Collectively, CBOs served a much smaller percentage of the overall adult learner enrollment, as shown in Figure 5 (the chart excludes the library outlier). If the library outlier is included, then libraries accounted for 50% of adult learner enrollment, followed by school district adult education programs (21%), postsecondary institutions (17%), CBOs (8%), other (3%), workforce development organizations (1%), and a K-12 school (.2%).

Figure 5: Proportion of Total Adult Learner Enrollment by Organizational Type



### PROVISION OF CAREER PATHWAYS

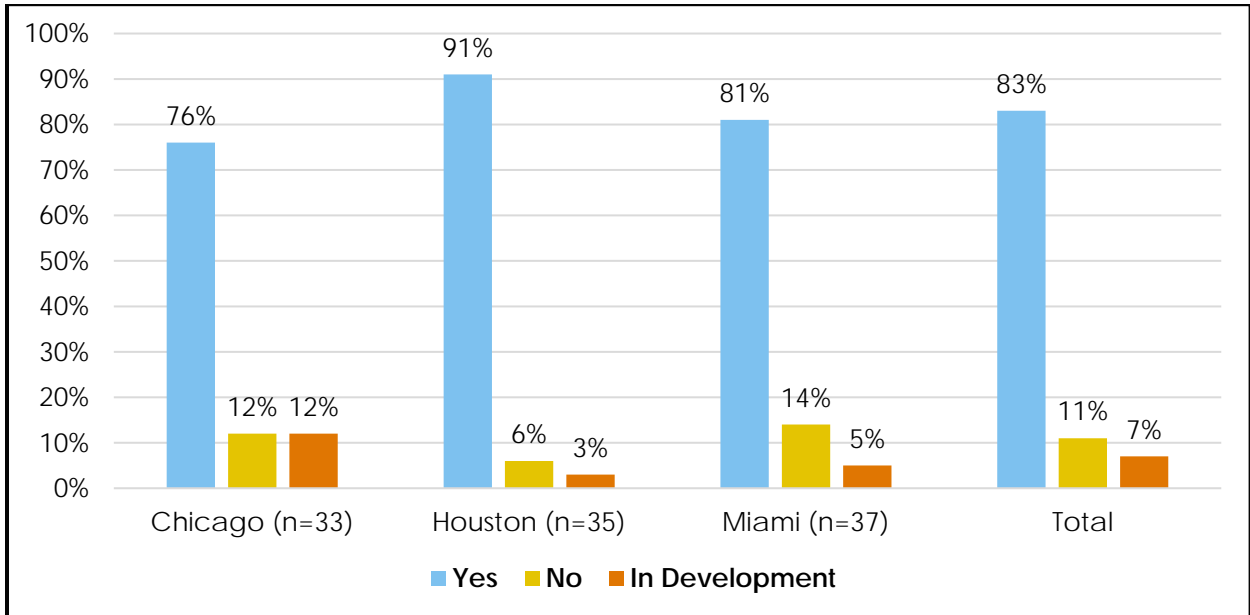
According to the following definition from CLASP (2013a), 83% of respondents said that they offer career pathways (CP); another 11% are developing CP programming. The career pathways approach connects

progressive levels of basic skills and postsecondary education, training, and supportive services in specific sectors or cross-sector occupations in a way that optimizes the progress and success of individuals—including those with limited education, English, skills, and/or work experience—in securing marketable credentials, family-supporting employment, and further education and employment opportunities. (p. 2)

There were no significant differences among cities. The high percentage of “yes” answers indicates that CP programming is very widespread: more than 90% of adult education providers are labeling their current and future work in this way.



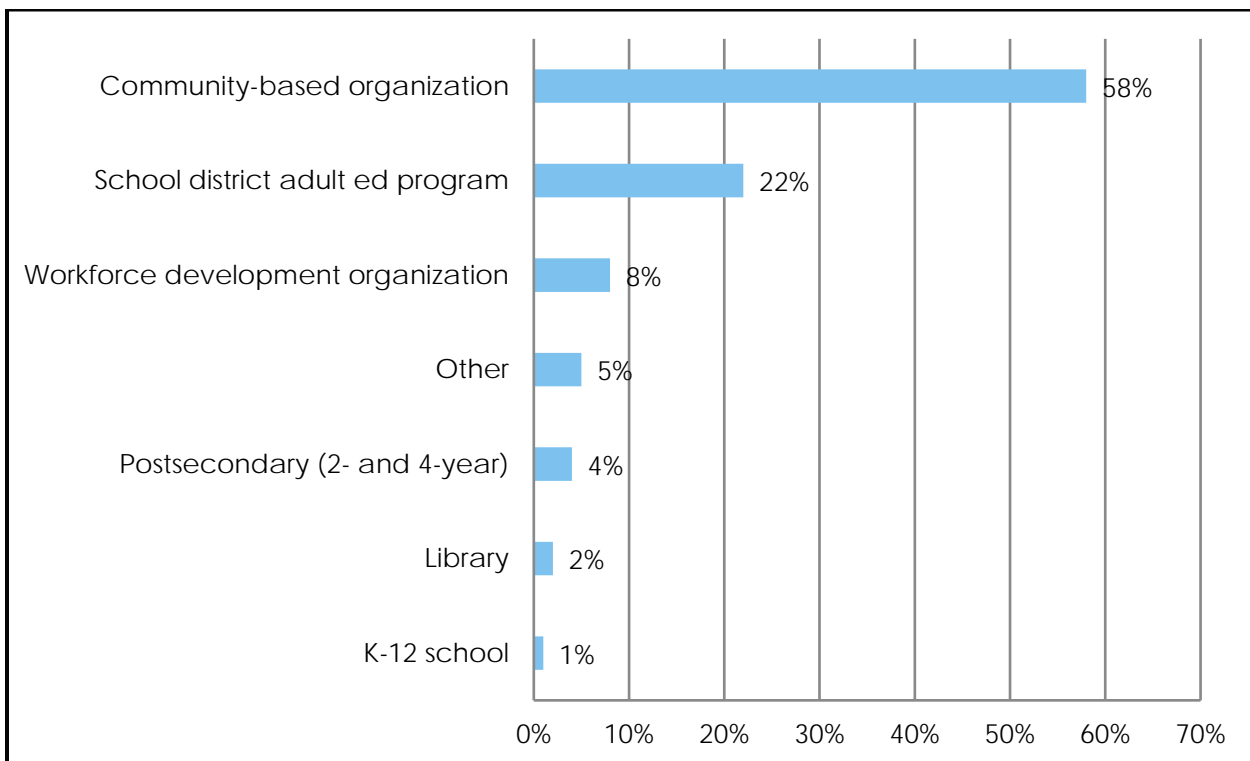
**Figure 6: Provision of Career Pathways (n=105)**



Note: totals in this and subsequent charts may not equal 100% due to rounding.

The types of organizations that indicated “yes” were as follows.

**Figure 7: Types of Organizations that Offer CP (n=86)**

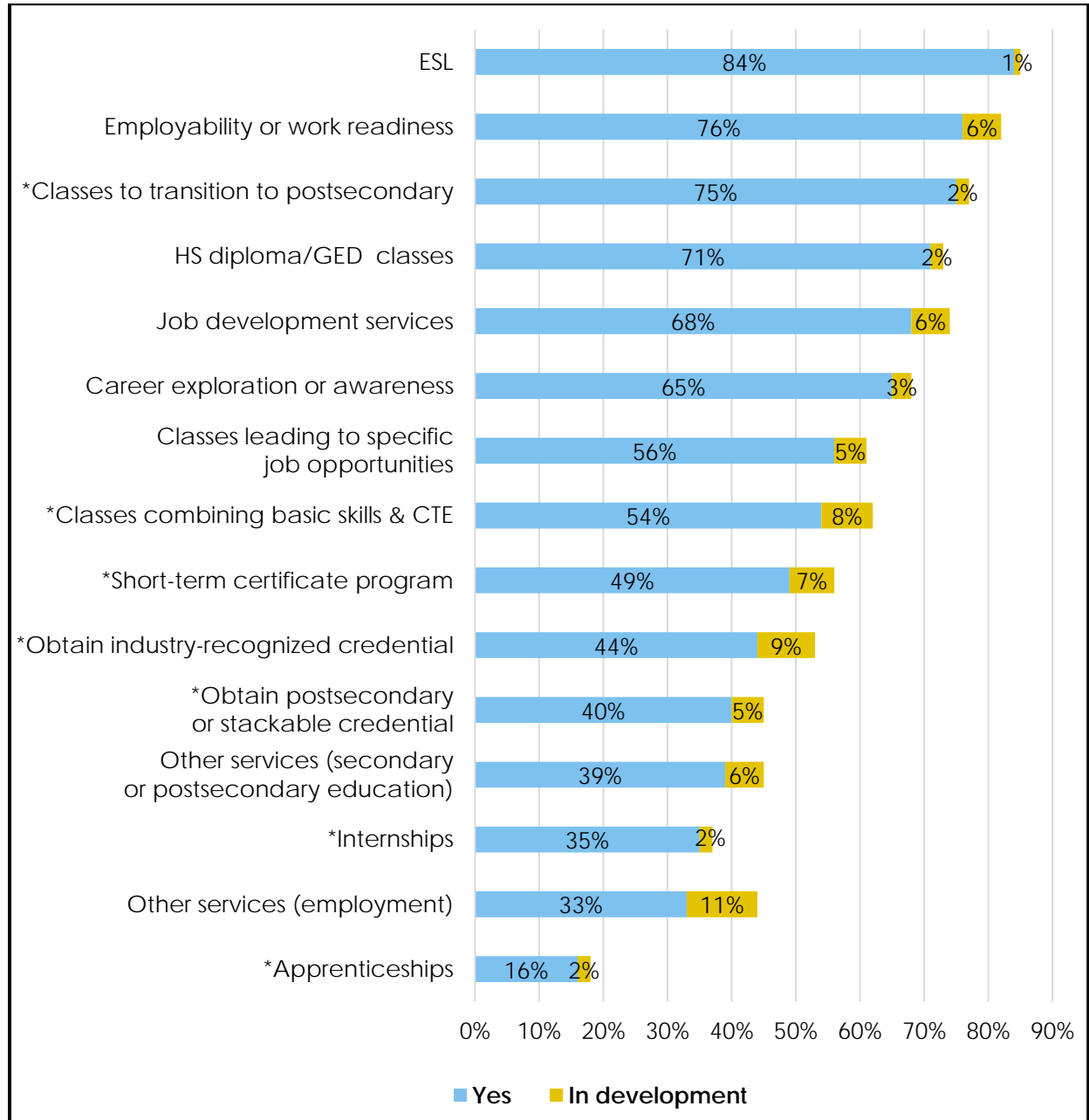


## TYPES OF CLASSES AND SERVICES

By asking respondents to indicate whether they offer CP per the CLASP definition *and* which services they provide, we were able to assess how robust CP services are. For instance, does an organization say they offer CP when in reality they only provide HSE or ESL classes, without any services that help students transition to postsecondary education or employment? Or do they have a menu of core CP services? We referred to CLASP documents and the wider literature on CP when defining what we consider a “core” CP services. We asked about 15 kinds of classes, services, or activities, including “other.”

The most common types of CP services were ESL (84%), employability or work readiness (76%), and classes to transition to postsecondary education (75%). However, the 7 core CP services (marked with an asterisk) were much less common, with the exception of classes to transition to postsecondary education.

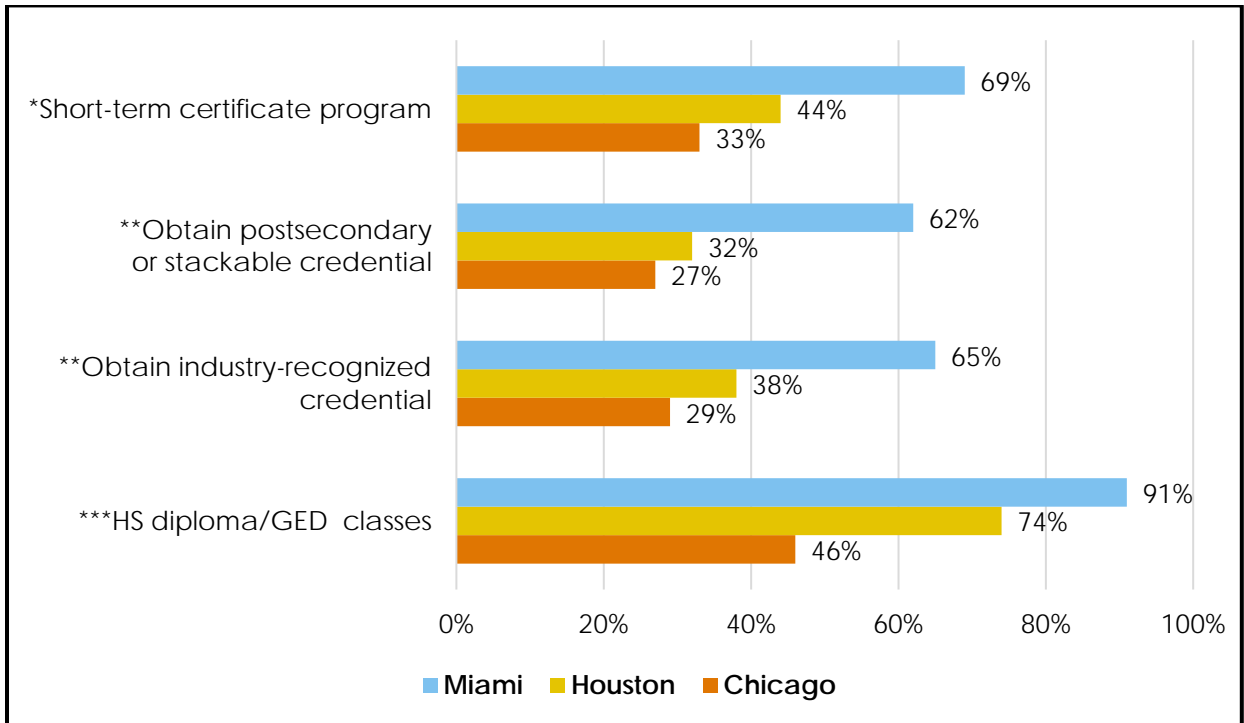
**Figure 8: Types of CP Services among All Respondents (n=80 to 103)**



Respondents' comments elaborating on the two "other" categories are listed in Appendix B.

Cities differed significantly in the percentage that offered high school diploma or GED® classes, classes to obtain a postsecondary or stackable credential, classes to obtain an industry-recognized credential, and short-term certificate programs (see Figure 9). There were no other statistically significant differences between cities in terms of the services they provided.

**Figure 9: Comparison of Career Pathway Services by City – Services with Significant Differences**

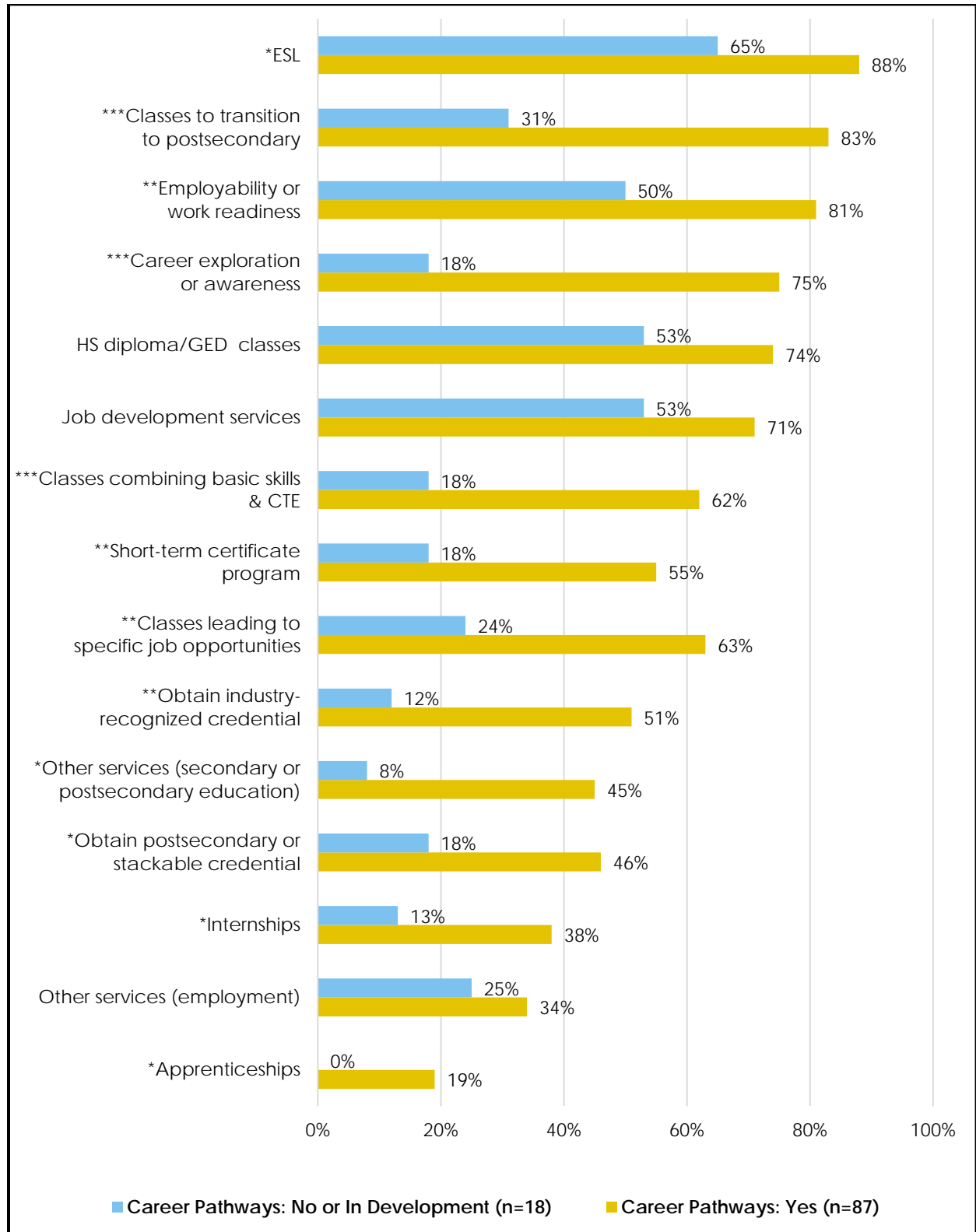


\* $p \leq .05$ ; \*\* $p \leq .01$ ; \*\*\* $p \leq .001$

Figure 10 compares the services currently offered by agencies that said they offer CP versus those that said “no” or “in development.” Agencies that said they offer CP were significantly more likely to provide 12 out of the 15 classes or services. The most significant differences were for:

- career exploration or awareness (75% vs. 18%),
- classes to transition to postsecondary (83% vs. 31%), and
- classes combining basic skills and career-technical education (62% vs. 18%).

**Figure 10: Comparison of Career Pathway Services among Agencies that Do or Do Not Meet the CLASP Definition (n=104)**



\*p ≤ .05; \*\*p ≤ .01; \*\*\*p ≤ .001

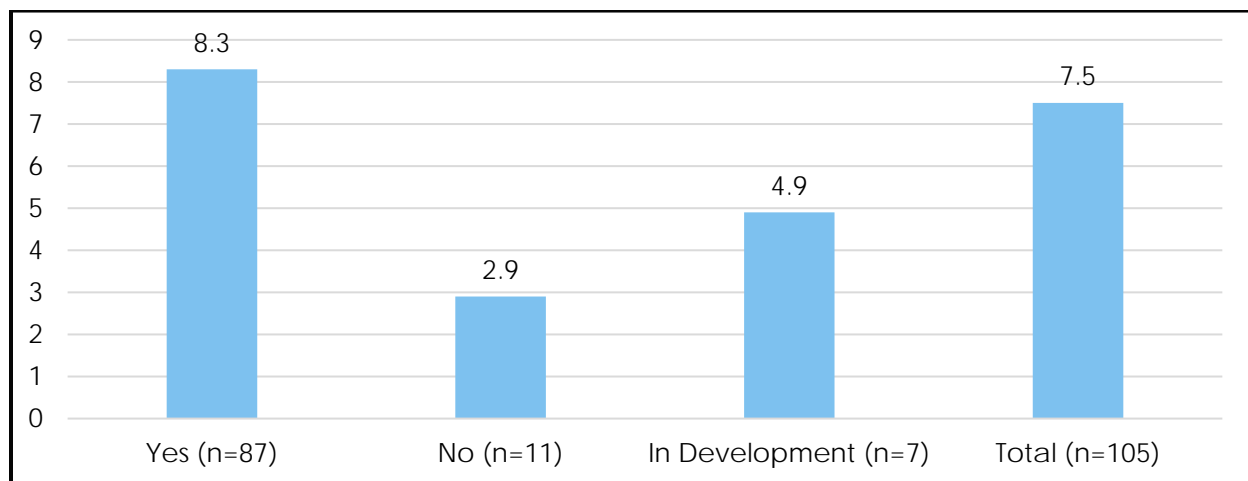
More than one-third (36%) of the 87 agencies that said they offer CP nevertheless reported zero students enrolled in the CP services listed below, suggesting that in these agencies CP may be less robust.

- classes to assist students in transitioning to postsecondary education
- classes that enable students to obtain a postsecondary or stackable credential
- classes required for completion of a short-term certificate program needed for advancement in education or employment
- classes that result in an industry-recognized credential
- apprenticeships
- internships

### NUMBER OF CLASSES AND SERVICES OFFERED

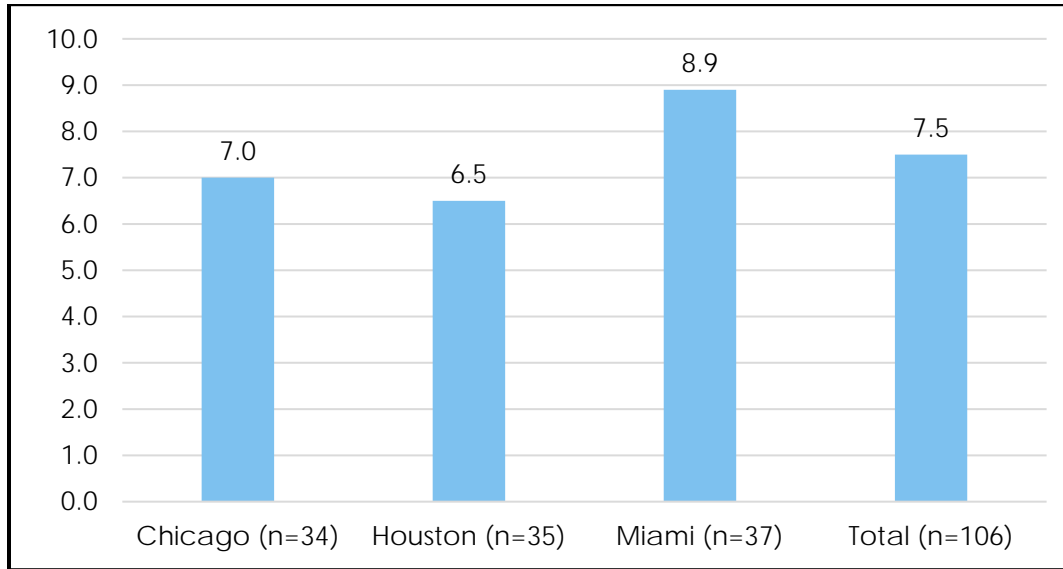
On average, agencies offered 7.5 adult education classes, services, or regular activities (median = 7; range = 1 to 15). Agencies that said they offer CP provided significantly more classes and services, on average, than those that said “no” or “in development” (see Figure 11). This makes sense because the kinds of services we asked about focus on employment and preparation for postsecondary education as opposed to family literacy, native language literacy, or other kinds of adult education classes.

**Figure 11: Mean Number of Adult Education Services by whether Agencies Offer CP (n=105)**



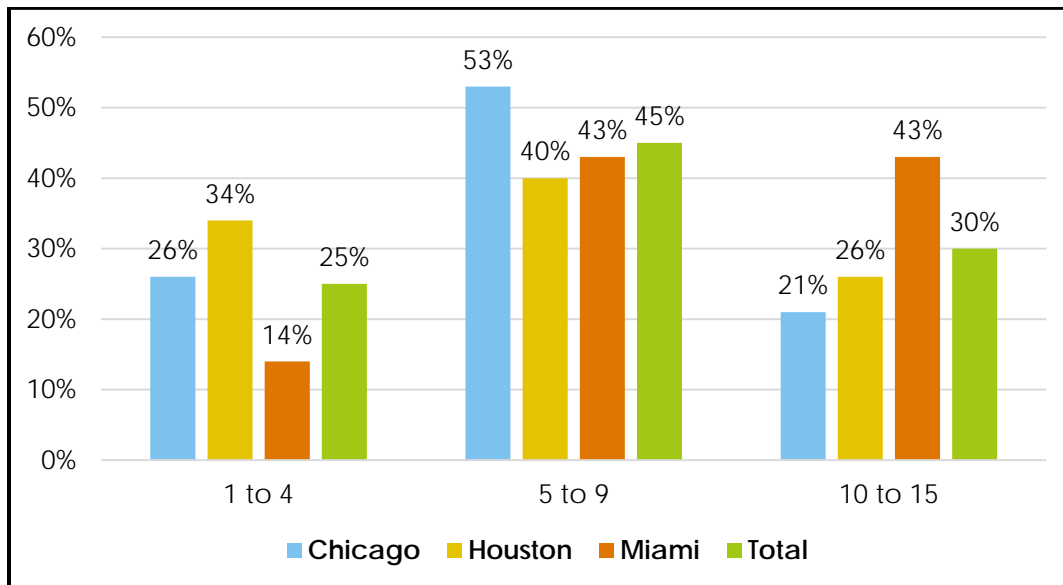
Agencies in Miami offered significantly more services, on average, than those in Chicago or Houston (see Figures 12 and 13). This is likely because the school district’s adult education programs (n=23) are large and provide 9.7 types of services, on average. On the whole, they also have greater institutional capacity to deliver more services, perhaps because they are part of a large school district that provides a menu of services to K-12 students as well as adults.

**Figure 12: Average Number of Adult Education Services per Agency, by City**



Among the agencies offering 10 to 15 services, the highest percentage was located in Miami (see Figure 13).

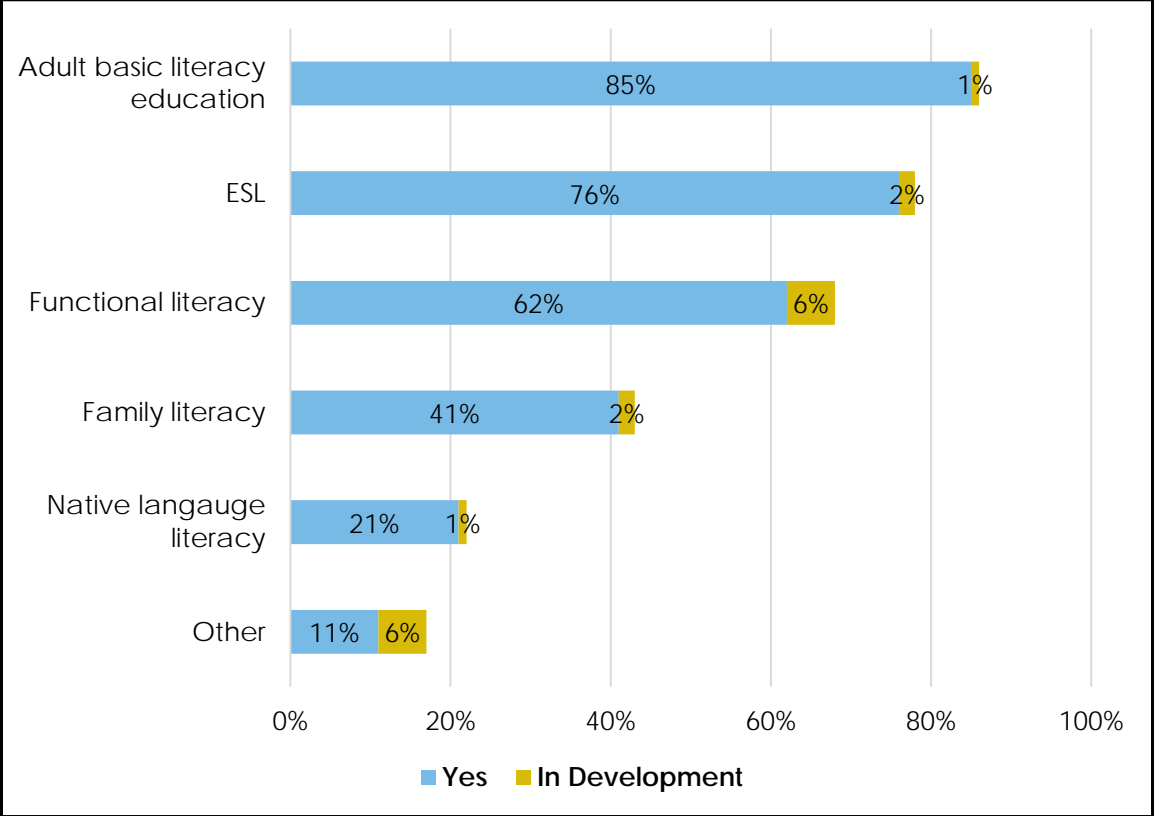
**Figure 13: Number of Adult Education Services per Agency, by City (n=104)**



*OTHER ADULT EDUCATION CLASSES*

In addition to the classes and services listed above, agencies offered other types of adult education as part of their CP programming, most frequently adult basic literacy education (85%) and ESL (76%).

**Figure 14: Other Adult Education Programming (n=35 to 102)**



Verbatim comments about “other” category in Figure 14 are found in Appendix B.

Agencies that said they offer CP were significantly more likely to offer four of the adult education programs listed above:

- functional literacy (70% vs. 20%,  $p < .001$ ),
- family literacy (47% vs. 7%,  $p < .01$ ),
- ESL (80% vs. 56%,  $p < .05$ ), and
- adult basic literacy education (88% vs. 69%,  $p < .05$ ).

This suggests that agencies that offer CP also provide a wider range of adult education classes, services, and activities.

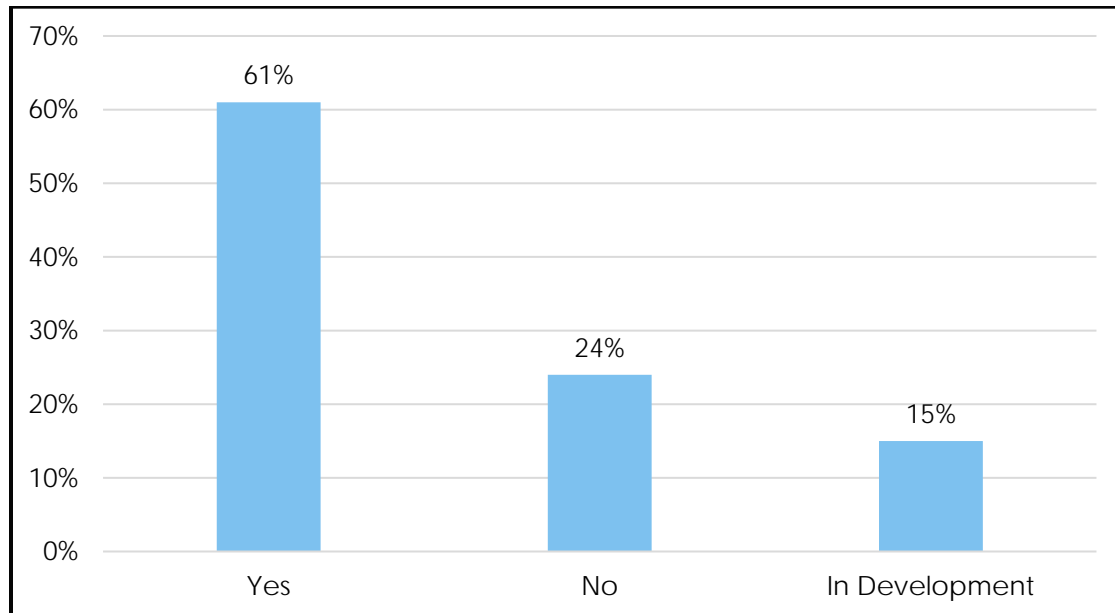
There were no significant differences between cities.



## INDIVIDUALIZED CAREER PATHWAY PLANS

Among the agencies that say they provide CP, 61% formally assist students in developing their own, individualized career pathway plan. This is in contrast to having all students follow the same pathway or not providing any specific pathway planning. There were no significant differences between cities.

**Figure 15: Individualized Career Pathway Plans (n=87)**



## OCCUPATIONAL SECTORS

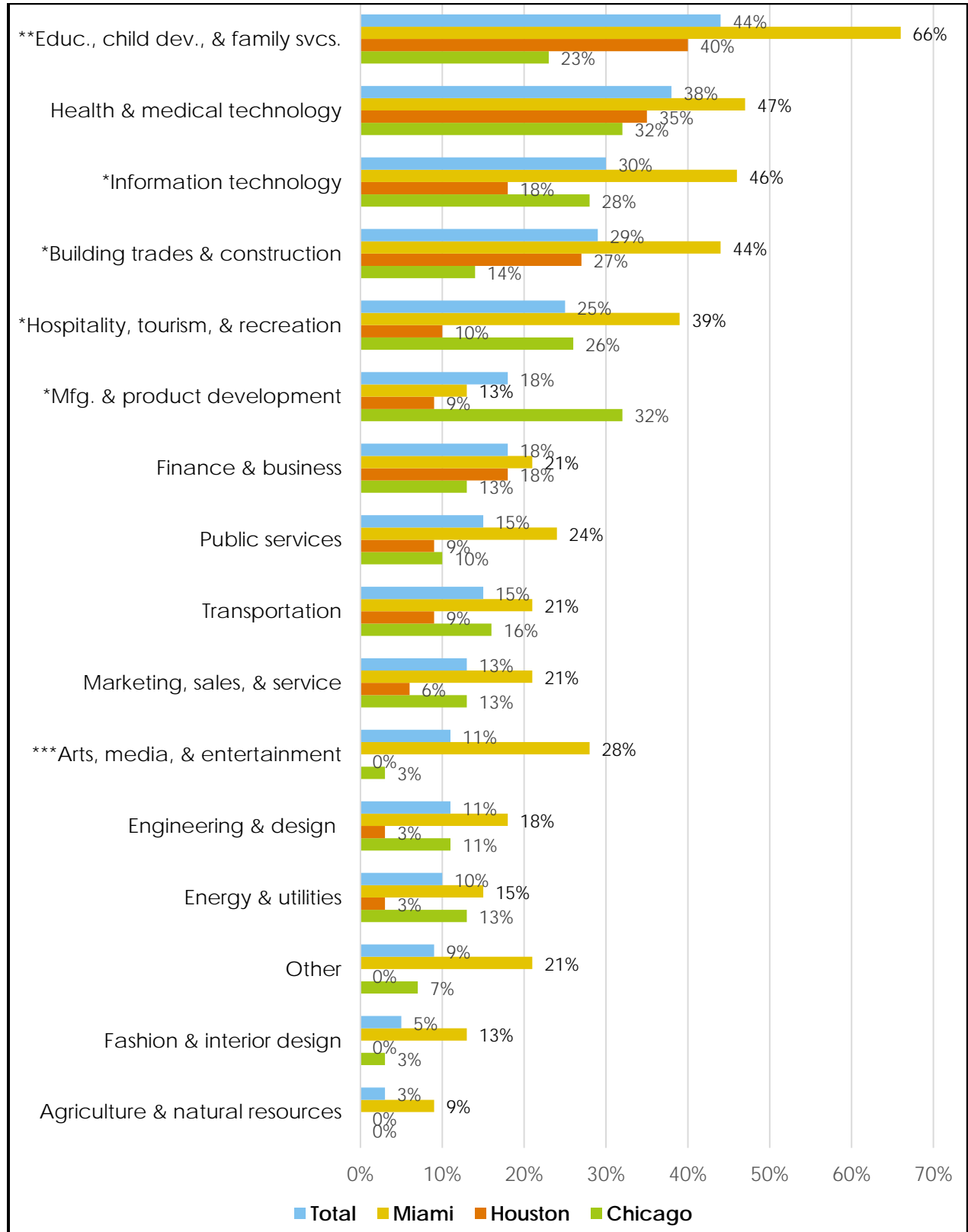
Education, child, and family services (44%) was the most common occupational sector, followed by health and medical technology (38%; see Figure 16).

Cities differed significantly regarding their focus on six occupational sectors:

- education, child, and family services;
- information technology;
- building trades and construction;
- hospitality, tourism, and recreation;
- arts, media, and entertainment; and
- manufacturing and product development.

The first five were most common in Miami, whereas the last was most common in Chicago.

Figure 16: Occupational Sectors (n=47 to 100)



\*p ≤ .05; \*\*p ≤ .01; \*\*\*p ≤ .001

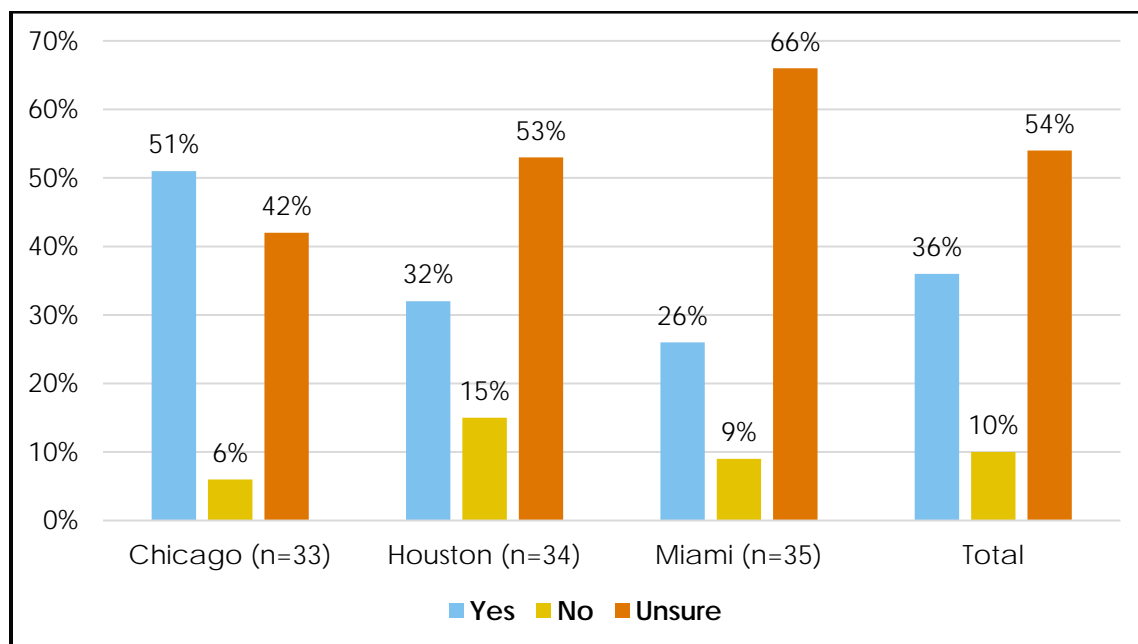
Verbatim comments from the “other” category are listed in Appendix B.

## COORDINATION AND PLANNING ACROSS CP PROVIDERS

### OPPORTUNITIES FOR CP PLANNING AND COORDINATION

Only 36% of respondents said there were venues for CP coordination and planning across organizations in their city, and more than one-half were unsure. This suggests that there is limited awareness of CP coordination across different kinds of agencies at the macro (city) level. This conclusion is supported by focus group and case study data.

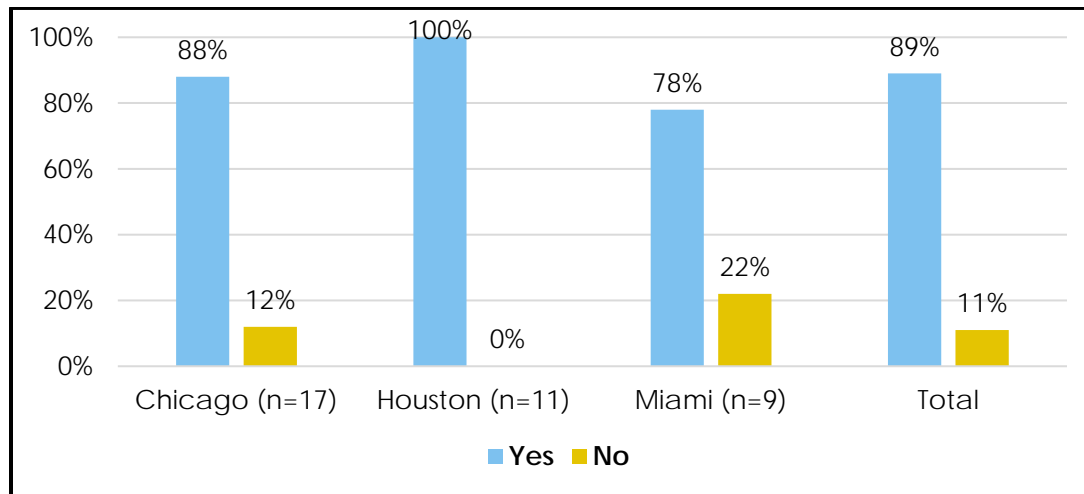
**Figure 17: Existence of Venues for CP Coordination and Planning across Organizations – All Respondents**



A possible explanation for the high percentage of “unsure” and “no” responses is that agencies that don’t offer CP may not know about opportunities for CP coordination. To investigate this hypothesis, we statistically analyzed whether agencies that offer CP answered this question differently from those that don’t offer or are developing CP. We found that 39% of agencies that offer CP (n=84) said there were mechanisms for coordination and planning and 51% were unsure; this compares to 18% and 71%, respectively, among agencies that didn’t offer or were developing CP (n=17). However, these differences were not statistically significant. This suggests that not offering CP doesn’t explain the high level of no/unsure responses.

Of those who knew about mechanisms for CP planning and coordination across organizations, nearly 90% participated in these (Figure 18). There were no statistically significant differences between cities.

**Figure 18: Percentage of Organizations that Know of and Participate in CP Coordination and Planning**



Thirty-three respondents offered comments describing these opportunities for coordination.

Chicago:

- Area Planning Council (administered by the Illinois Community College Board, or ICCB) (n=6 mentions)
- City Colleges of Chicago (n=4)
- Partnerships with other organizations such as postsecondary institutions or organizations offering the same types of services (n=3)
- Chicago Citywide Literacy Coalition (n=2)
- Chicago Jobs Council (n=2)
- Women Employed (n=2)
- Other networks such as Allied Healthcare Network and Literacy Service Network (n=2)
- Workforce development partners (n=1)

Houston:

- Houston Center for Literacy (n=4)
- United Way Thrive Program (n=3)
- Coalitions and consortia (Houston Literacy Consortium, literacy coalitions, Houston literacy partnership agencies) (n=3)

- Workforce board or commission (n=2)
- City of Houston Mayor's Office (n=1)
- Houston Community College (n=1)
- Barbara Bush Foundation (n=1)
- Another person explained, "Organizations providing these services meet on an on-going basis; additionally, we often interact by phone with other organizations - those who provide literacy training, as well as those who help ex-offenders, and other social services organizations."

Miami:

- Partnerships (e.g., with local industry, CBOs, colleges, or technical schools) (n=2)
- Non-profit organizations (n=1)
- Adult education centers administered by Miami-Dade County Public Schools (n=1)
- One Community One Goal initiative (n=1)

Note that the examples pertaining to community colleges, partnerships, and school districts do not necessarily involve planning *across* different types of institutions at a citywide (macro) scale. Rather, they tend to entail planning *within* a single institutional network (community college or public school system) or across a few organizations (institution-to-institution partnerships). This topic is discussed later in the report.

### *EFFECTIVENESS OF CP PLANNING AND COORDINATION*

One-fifth of respondents believed that organizations in their city are "very effective" in working together to avoid duplicating CP services (see Figure 19) and in determining and filling gaps in CP services (see Figure 20). Sixty-three to 64% thought they were very or somewhat effective in both areas, compared to 35% to 36% who thought they were slightly or not at all effective. There were no significant differences by city.

Figure 19: Working Together to Avoid Duplicating CP Services (n=98)

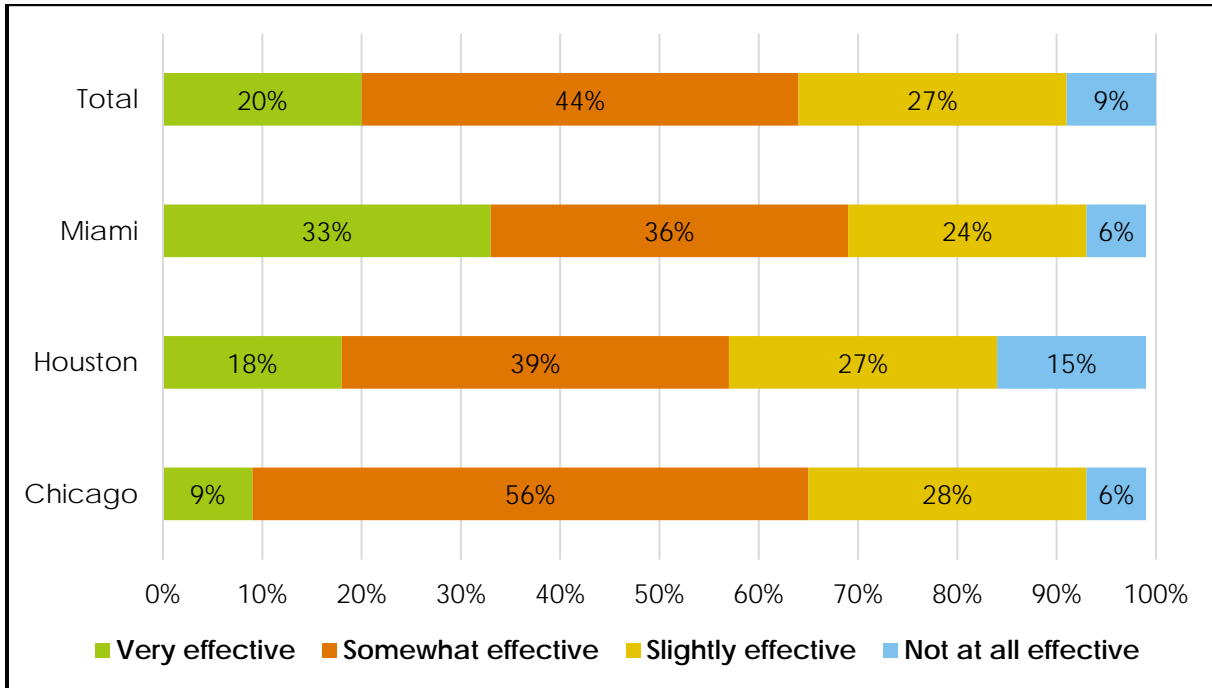
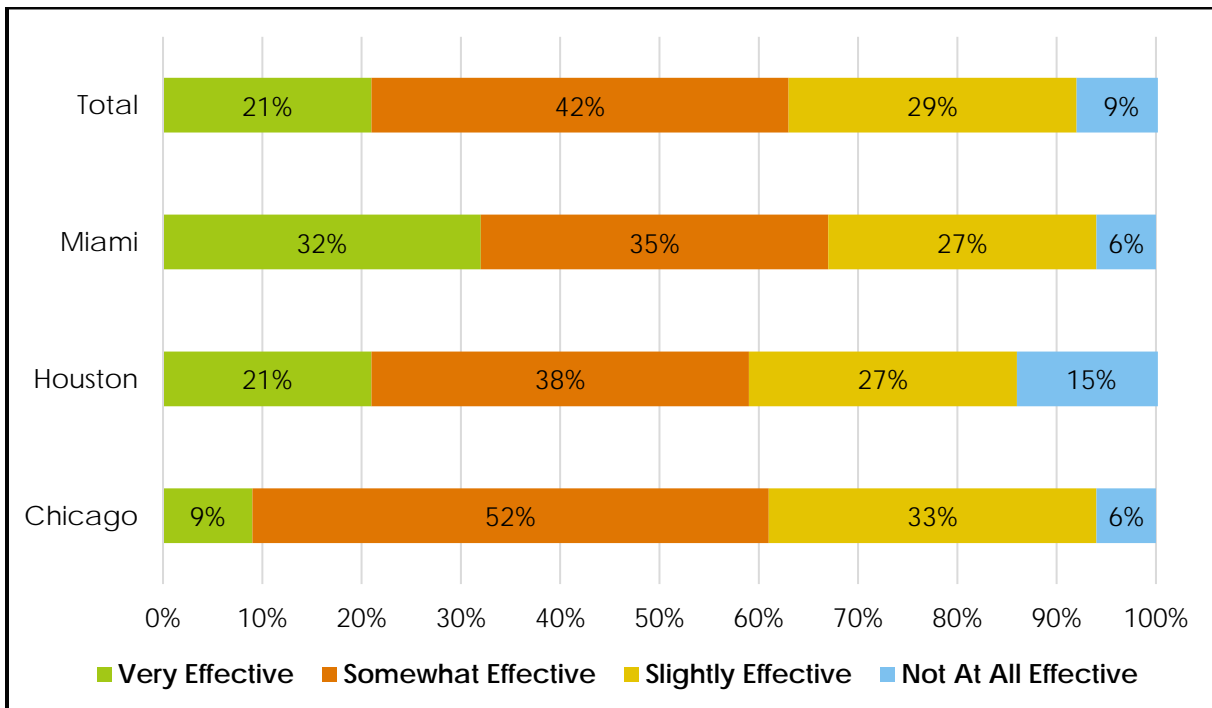


Figure 20: Working Together to Fill Gaps in CP Services (n=101)



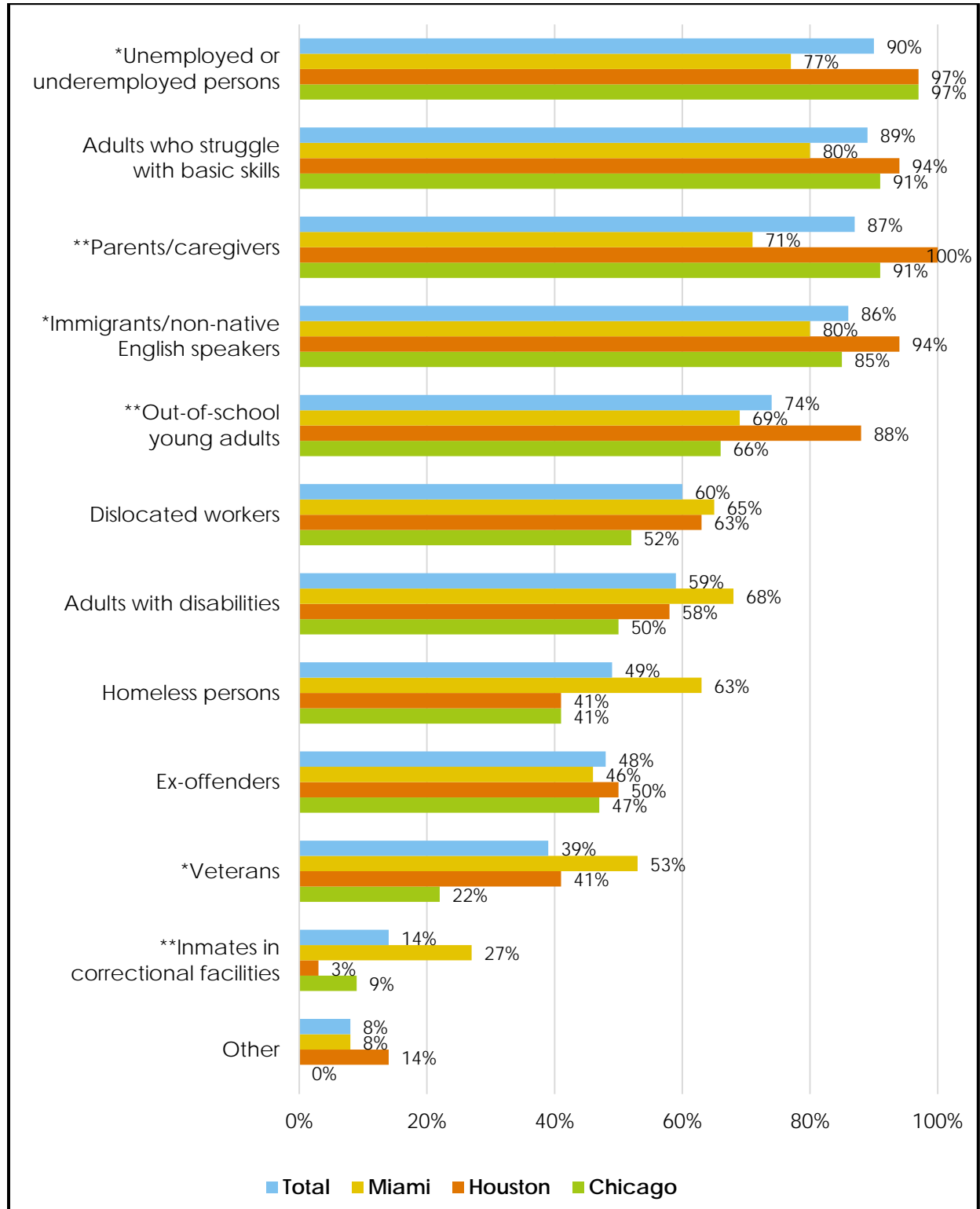
## STUDENT CHARACTERISTICS AND DEMOGRAPHICS

### *TYPES OF STUDENTS SERVED*

Agencies served a wide range of students, particularly unemployed or underemployed persons (90%), adults who struggle with basic skills (89%), immigrants or non-native English speakers (87%), and parents or caregivers (86%). There were statistically significant differences between cities for the following student groups:

- unemployed or underemployed persons,
- parents/caregivers,
- out-of-school young adults,
- veterans, and
- inmates.

Figure 21: Types of Students Served, by City (n=36 to 104)



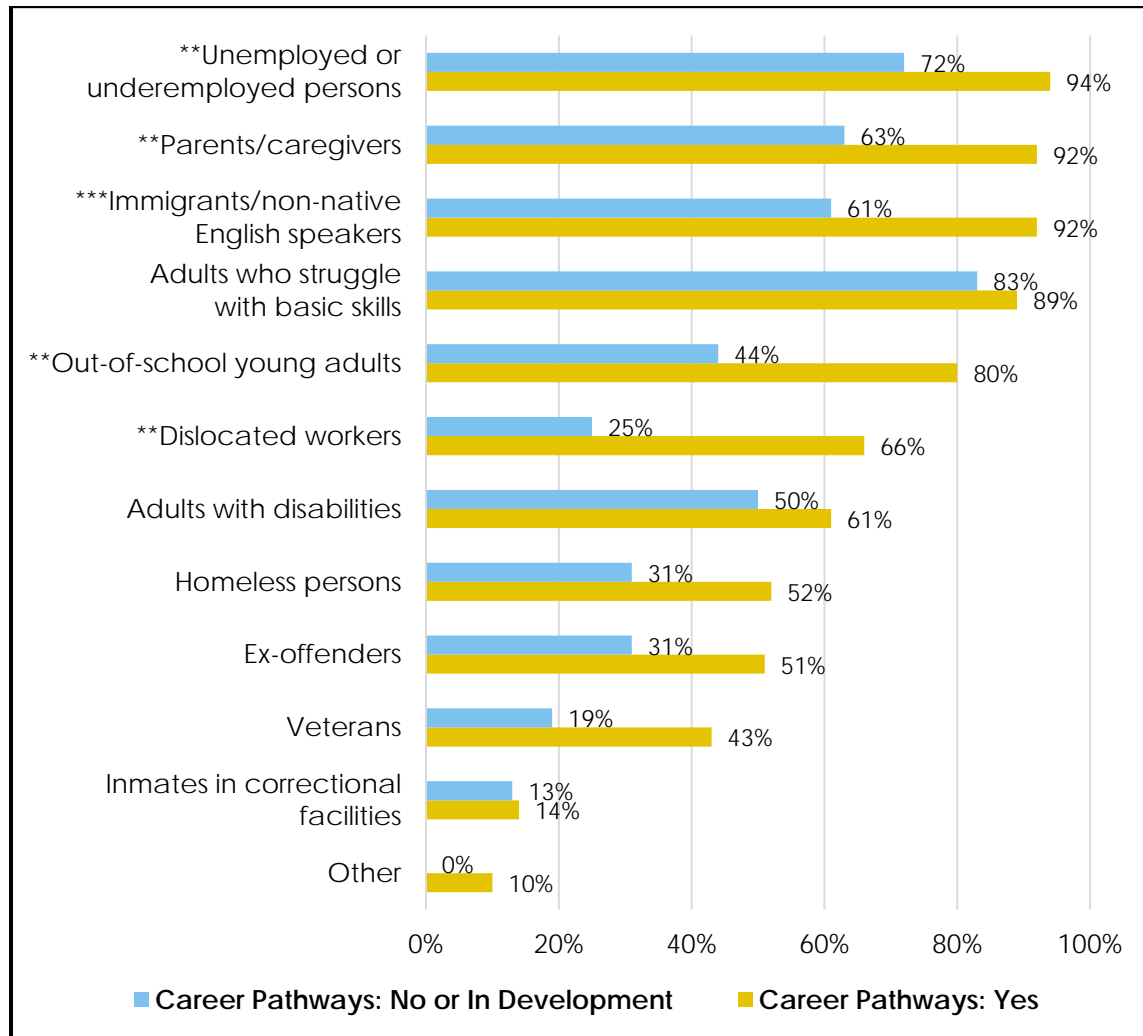
\*p < .05; \*\*p < .01

Verbatim comments from the “other” category are listed in Appendix B.



Agencies that said they offered CP were significantly more likely to serve immigrants or non-native English speakers, parents or caregivers, out-of-school young adults, dislocated workers, and unemployed or underemployed adults (see Figure 22).

**Figure 22: Types of Students Served by Whether Agencies Offer CP (n=35 to 103)**



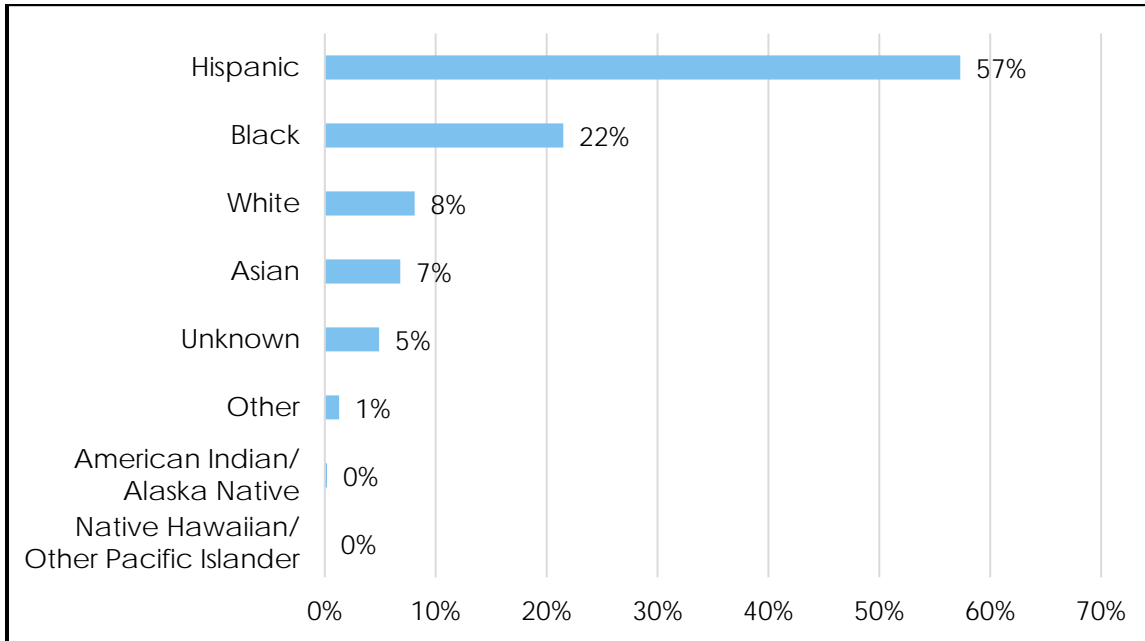
\* $p \leq .05$ ; \*\* $p \leq .01$ ; \*\*\* $p \leq .001$

### DEMOGRAPHIC CHARACTERISTICS

Agencies reported demographic characteristics of CP students as a sub-set of all their adult learners.<sup>6</sup> Due to missing data and inaccurate reporting of some demographic data, the figures below should be interpreted as rough estimates.<sup>7</sup>

About 59% of CP students were women and 41% were men. Approximately 67% were foreign-born. Hispanics comprised approximately 57% of the U.S.-born CP students (Figure 23).<sup>8</sup>

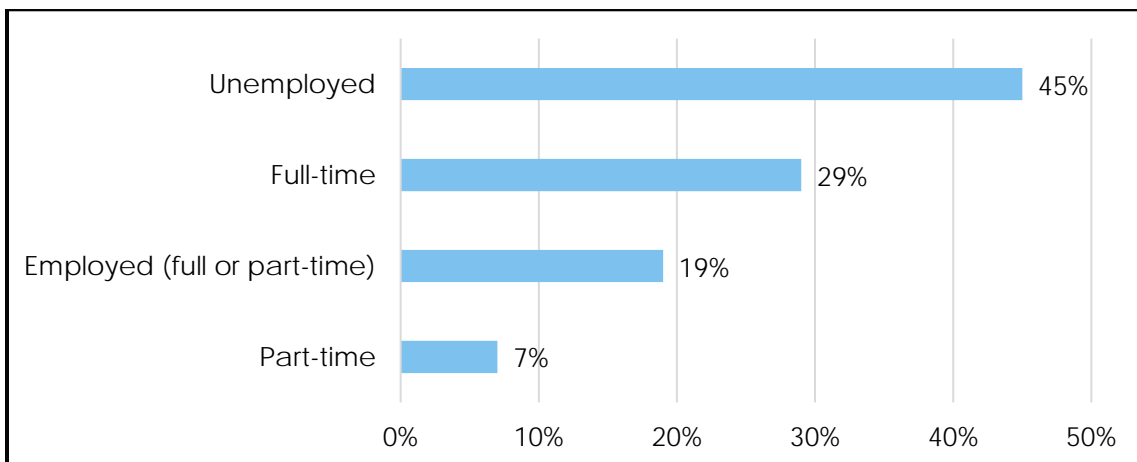
**Figure 23: Race/Ethnicity of U.S.-Born Students (n=81 programs)**



Verbatim comments about the “other” category are listed in Appendix B.

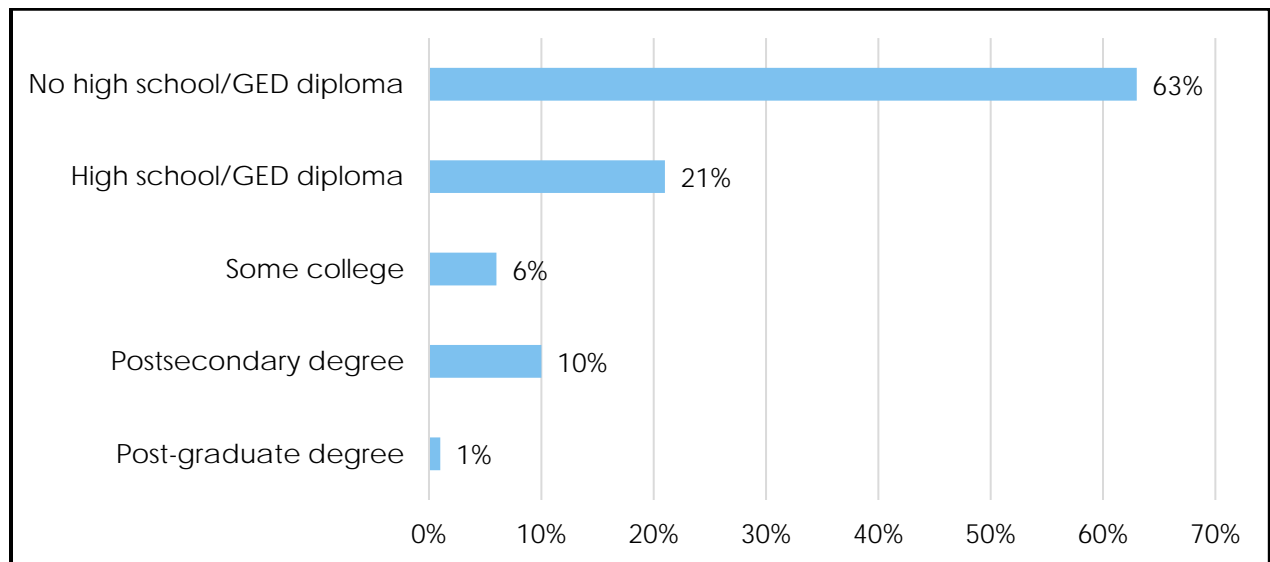
CP students were economically and educationally vulnerable. Overall, about 44% of CP students were receiving some kind of public assistance such as TANF, SNAP, or SSI (n=34 programs). The majority of students were working at least part-time, but approximately 45% were unemployed (see Figure 24). (Some agencies only ask students whether they are employed, not whether they are employed full- or part-time. These students are included in the “employed [full or part-time] category.)

**Figure 24: Employment Status (n=76 programs)**



Nearly two-thirds of CP students did not have a high school or GED® diploma. Adults with a postsecondary or graduate degree were concentrated in agencies that serve a high percentage of educated refugees, such as those from Cuba. For example, 50% of the participants at a Miami site and 94% of participants at a Houston site had a college degree or higher. Bear in mind that these are only students enrolled in the six core CP services: classes to transition to postsecondary, short-term certificate program, classes to obtain an industry-recognized credential, classes to obtain a postsecondary or stackable credential, internships, and apprenticeships.

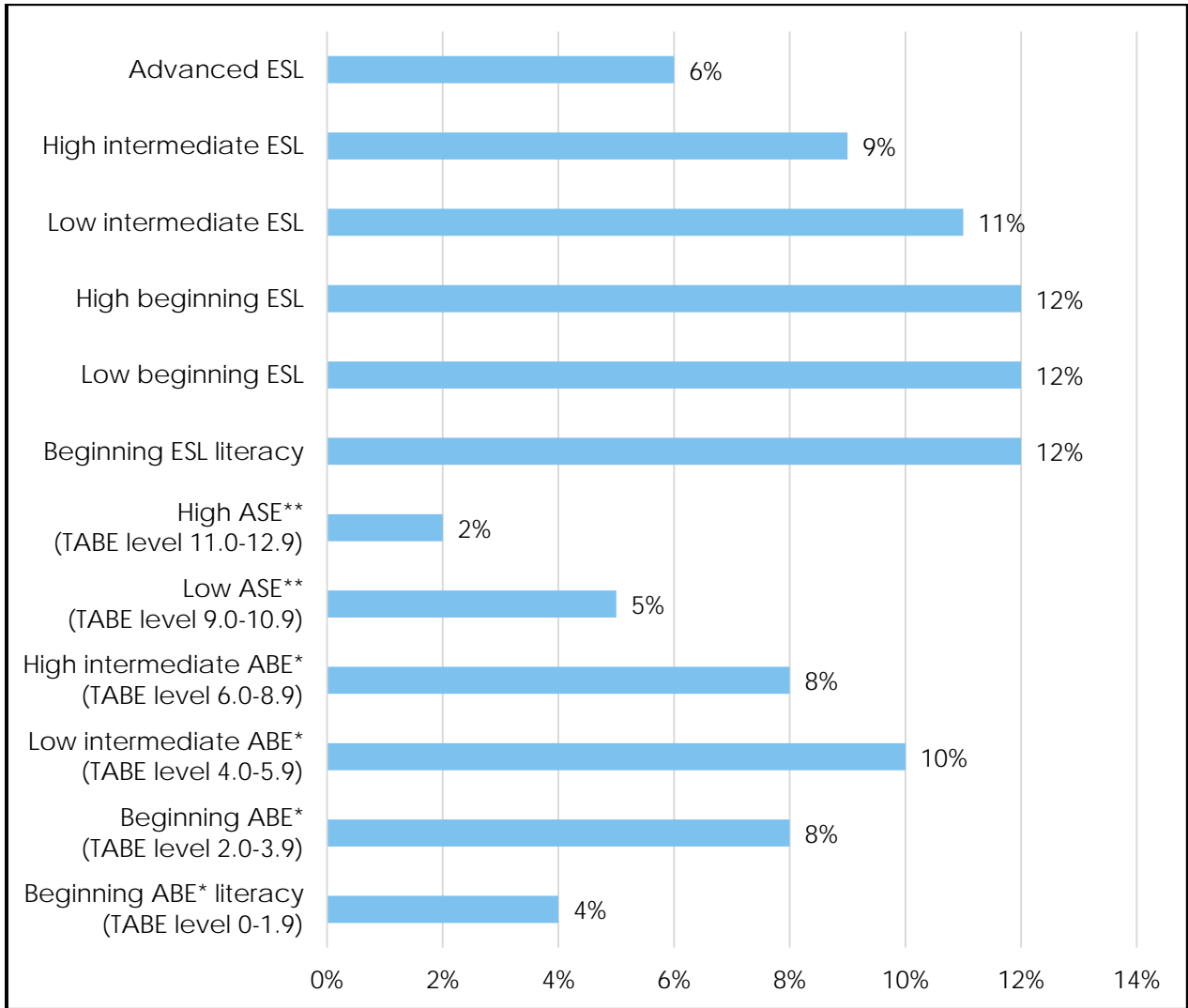
**Figure 25: Educational Attainment (n=82 programs)**



### *STUDENT TESTING, CLASSIFICATION, AND ENROLLMENT*

Among the agencies that reported National Reporting System educational functioning levels, nearly two-thirds (about 63%) of CP students tested at an ESL functional level and 37% tested at an Adult Basic Education functional level. About 69% of CP students placed at a beginning to low intermediate ABE or ESL level (n=74 programs).

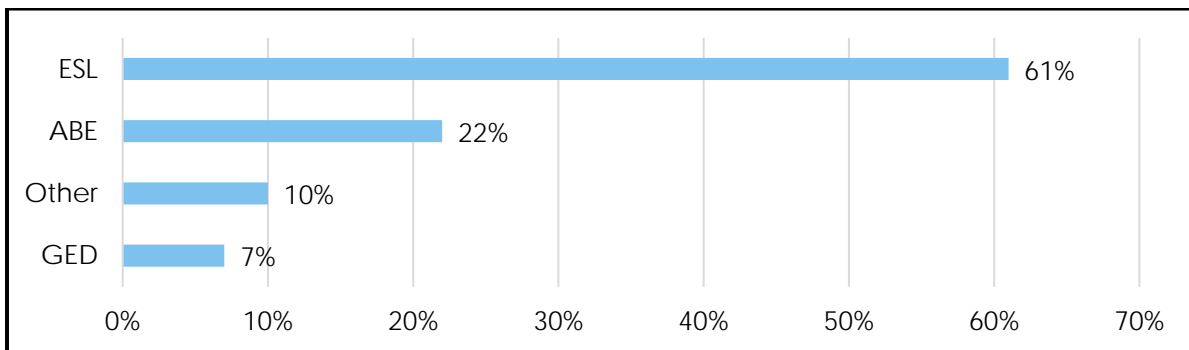
**Figure 26: NRS Educational Functioning Levels (n=74 programs)**



\*ABE: Adult Basic Education \*\*ASE: Adult Secondary Education

The majority (61%) of students were enrolled in ESL classes.

**Figure 27: Student Classification (n=86 programs)**



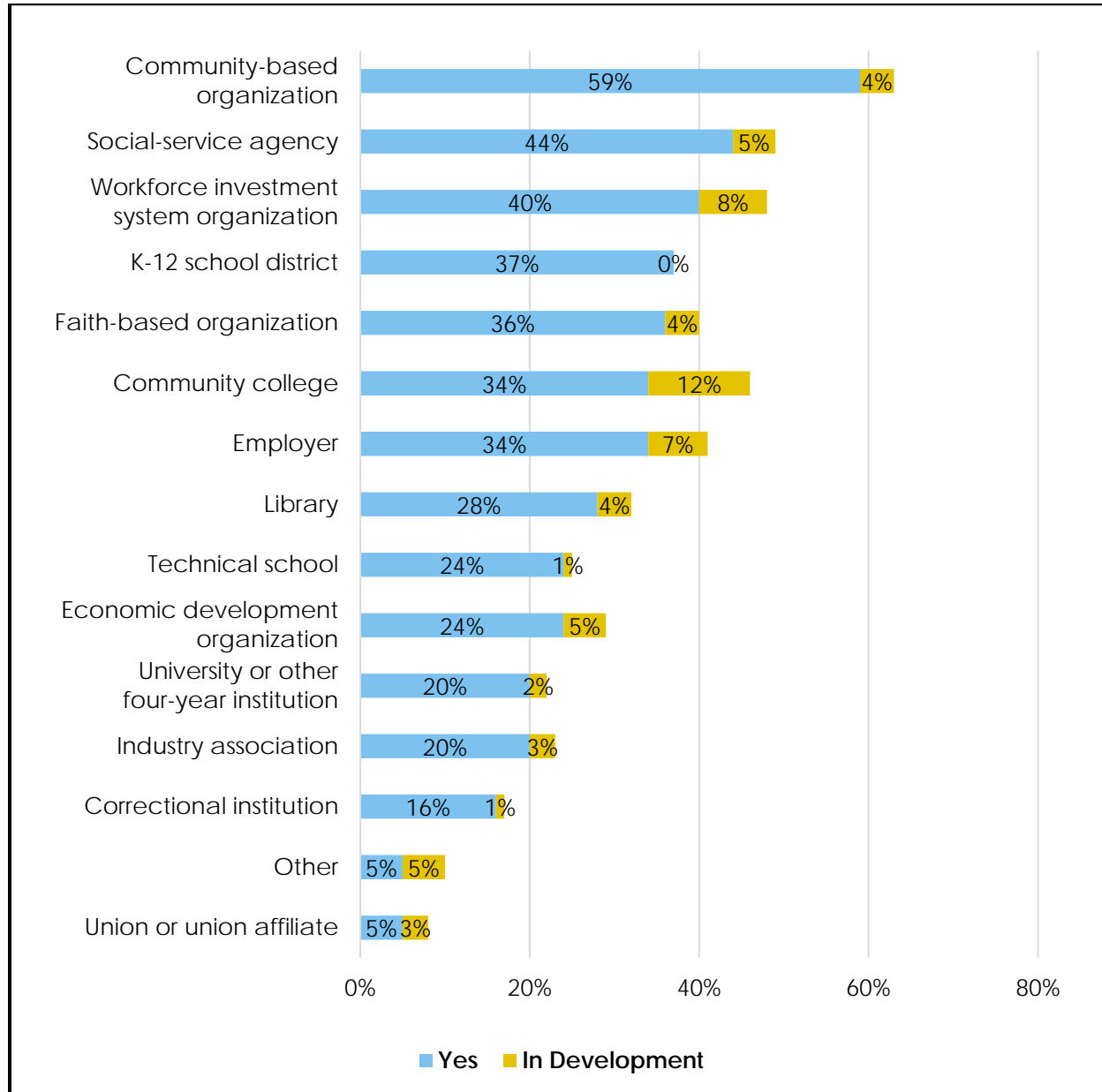
CP students were enrolled for an average of 228 hours; the median was 128 hours (n=77 programs).<sup>9</sup> They were enrolled for an average of 19 weeks; the median was 14.6 (3.3 months) (n=59 programs).

## **PROGRAM DESIGN AND IMPLEMENTATION**

### *PARTNERSHIPS*

Respondents provided CP services jointly with many types of organizations, particularly CBOs (59%), social service agencies (44%), and workforce investment system organizations (40%). Notably, 12% of respondents were developing partnerships with community colleges. Verbatim comments about the “other” category are listed in Appendix B.

**Figure 28: Types of CP Partners (n=43 to 97)**

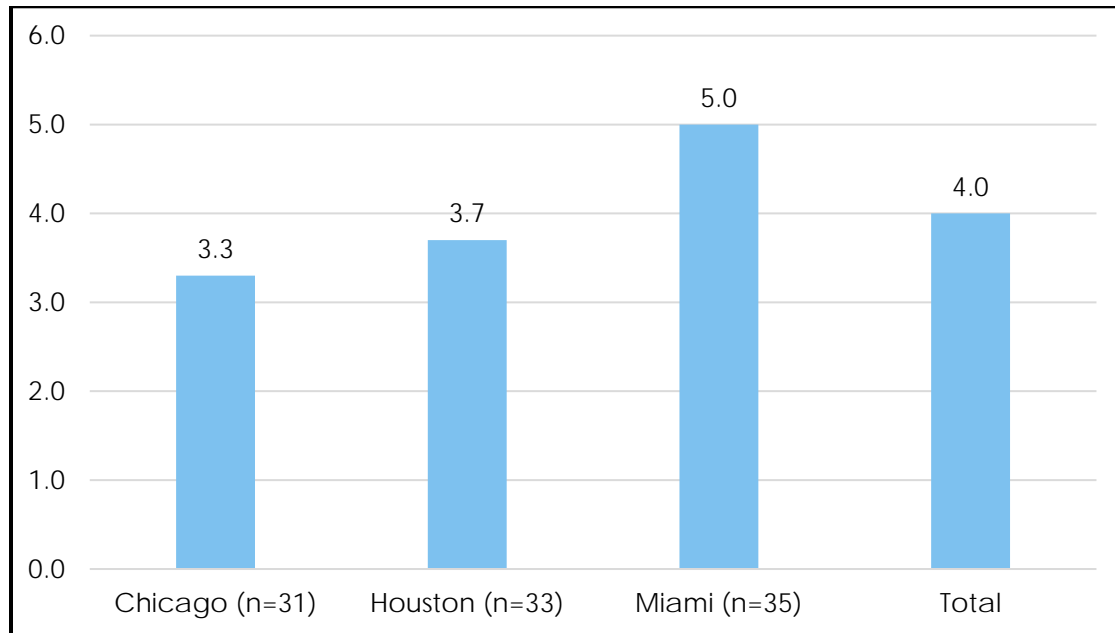


Cities differed significantly in the percentage that partnered with K-12 school districts, technical schools, and correctional institutions. Miami had the highest percentage for all three types. This is likely because the MDCPS K-12 school district was one of the two main adult education providers and many of the MDCPS adult education centers call themselves technical colleges.

- K-12 school district: 64% in Miami, 30% in Houston, 13% in Chicago ( $p \leq .001$ )
- Technical schools: 56% in Miami, 7% in Chicago, and 7% in Houston ( $p \leq .001$ )
- Correctional institutions: 30% in Miami, 10% in Houston, 7% in Chicago ( $p \leq .05$ )

Agencies had an average of 4.0 partners (median = 3; see Figure 29). Agencies that said they offered CP had significantly more partners, on average, than those that said “no” or “in development” (4.6 vs. 1.1;  $p \leq .001$ ). There were no significant differences by city.

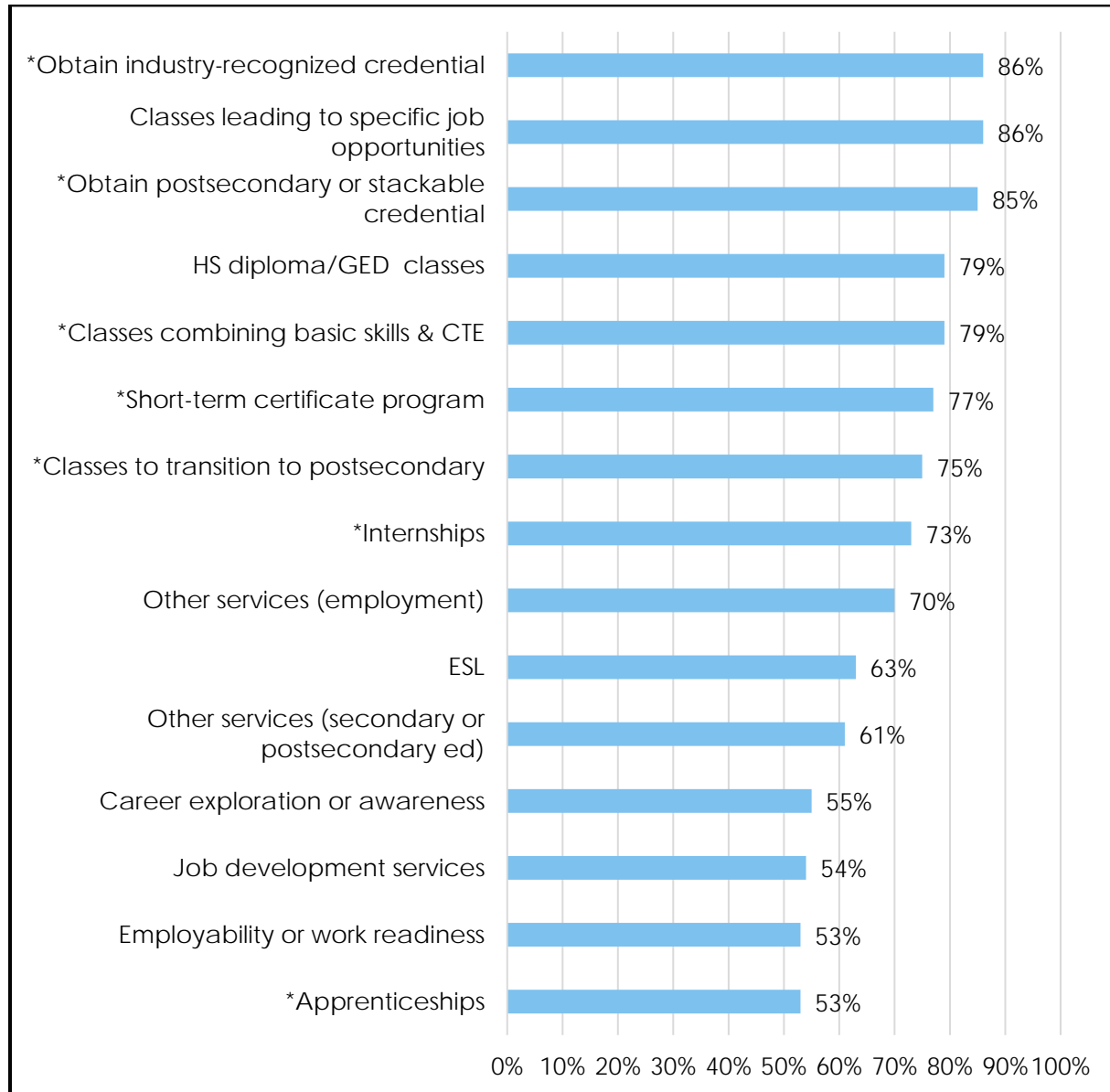
**Figure 29: Average Number of CP Partners**



### ENTRY REQUIREMENTS

One of our interests was to determine whether adults who struggle with English, reading, or math or who lack a high school diploma have access to CP programs, or whether these programs are mainly geared toward adults who already have a high school diploma and stronger academic skills. For each of the classes or services below, more than 50% of agencies reporting having grade level, test score, or language entry requirements.<sup>10</sup> These requirements were most common for classes to obtain an industry-recognized credential, to access specific job opportunities, and to obtain a postsecondary or stackable credential. Core CP classes are marked with an asterisk.

**Figure 30: Percentage of Classes and Services with Grade Level, Test Score, or Language Entry Requirements (n=15 to 83)**



Agencies that said they offered CP were significantly more likely to have threshold requirements for job development services (59% vs. 22%,  $p < .05$ ).

There were significant differences by city in having threshold requirements for other activities to prepare students to succeed in secondary or postsecondary education (83% in Miami, 71% in Chicago, and 33% in Houston,  $p < .05$ ). (The list of other activities for all three cities are listed in Appendix B. The threshold requirements for these activities were not specified.)

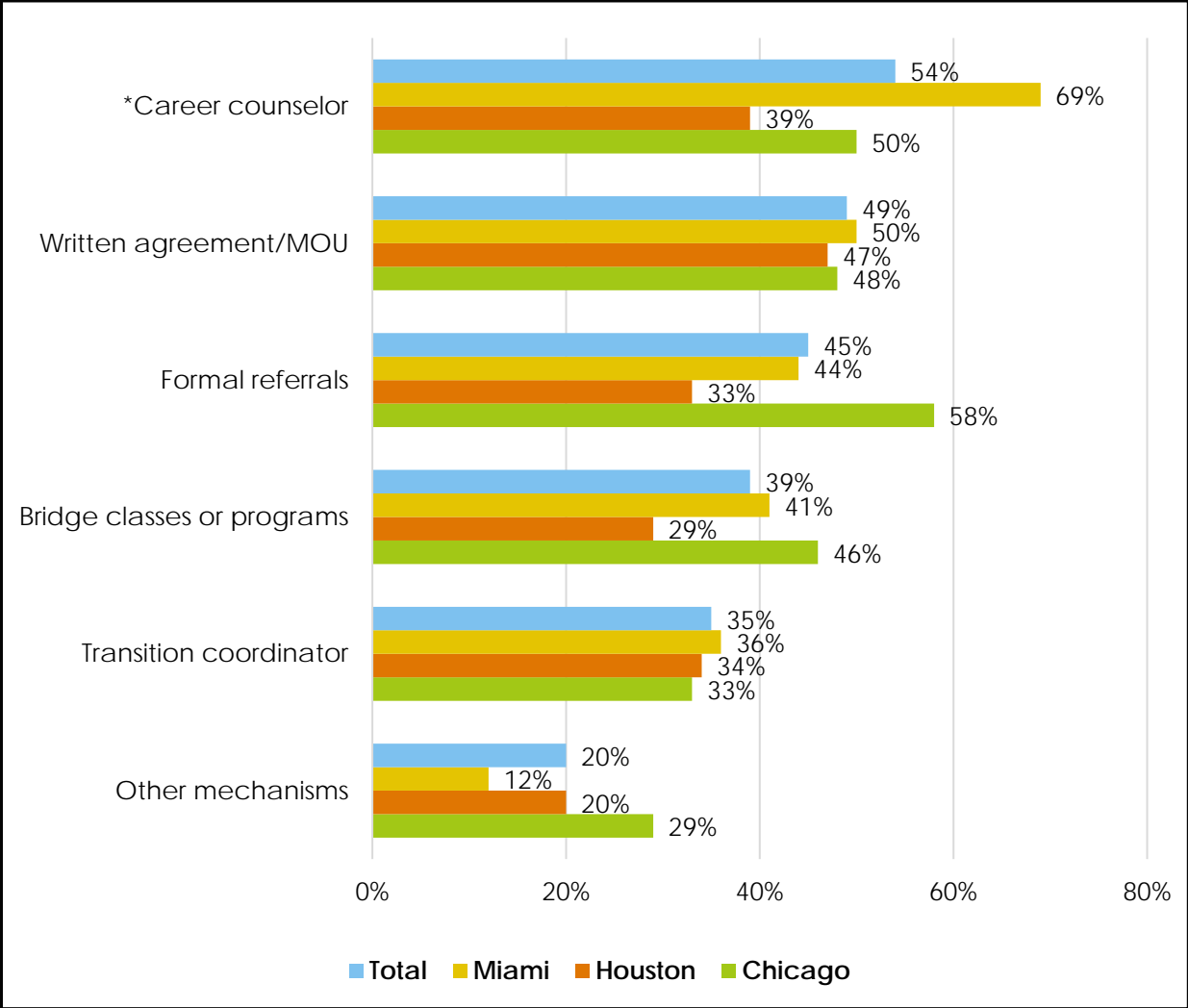


*TRANSITIONING TO THE NEXT STEP IN THE PATHWAY*

Career counselors were the most common formal mechanism for transitioning adult education students to the next step of their career pathway, such as employment, training, further education, or a credential. The percentage of mechanisms that are “in development” is not listed.

Cities differed significantly in the percentage that had career counselors; these were most common in Miami. Agencies that offered CP versus were significantly more likely than those that said “no” or “in development” to have career counselors, written agreements/MOUs, bridge classes or programs, and transition coordinators. This makes sense because the question asked about next steps in the *career pathway*; organizations that don’t do CP don’t have CP transitions as a programmatic goal.

**Figure 31: Formal Mechanisms for Transitioning Students (n=51 to 99)**



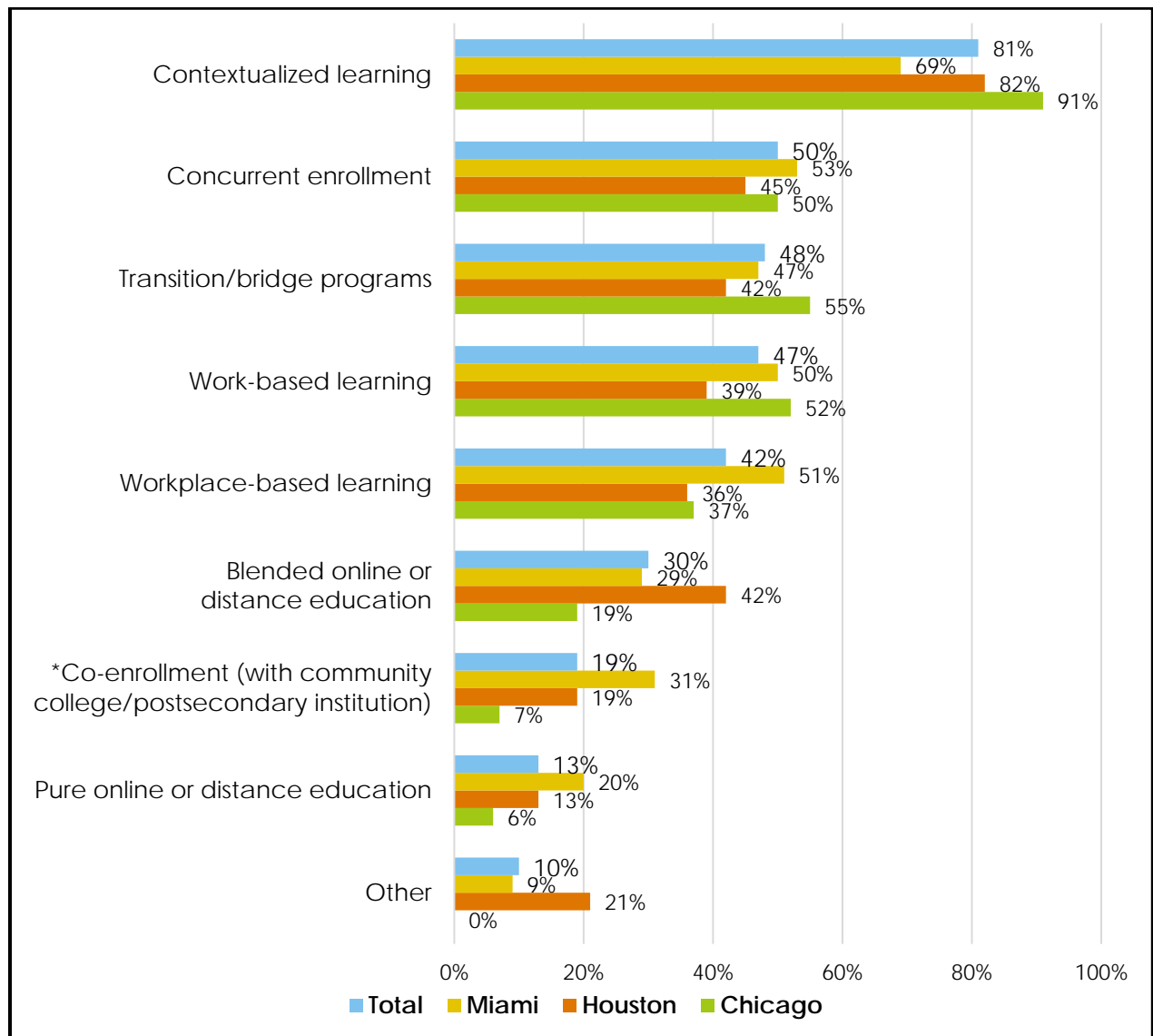
\*p ≤ .05

Under the “other” category, the most common mechanisms were (1) partnerships and (2) resume preparation, employment coaching, and job search assistance. Explanations for “other mechanisms” are listed in Appendix D.

### INSTRUCTIONAL APPROACHES

Contextualized learning was by far the most common instructional approach (81%), followed by concurrent enrollment (50%; see Figure 32).<sup>11</sup> Transition/bridge programs were being developed by 13% of respondents. Miami agencies were significantly more likely to offer co-enrollment with a community college or postsecondary institution. Explanations for other instructional approaches are found in Appendix J.

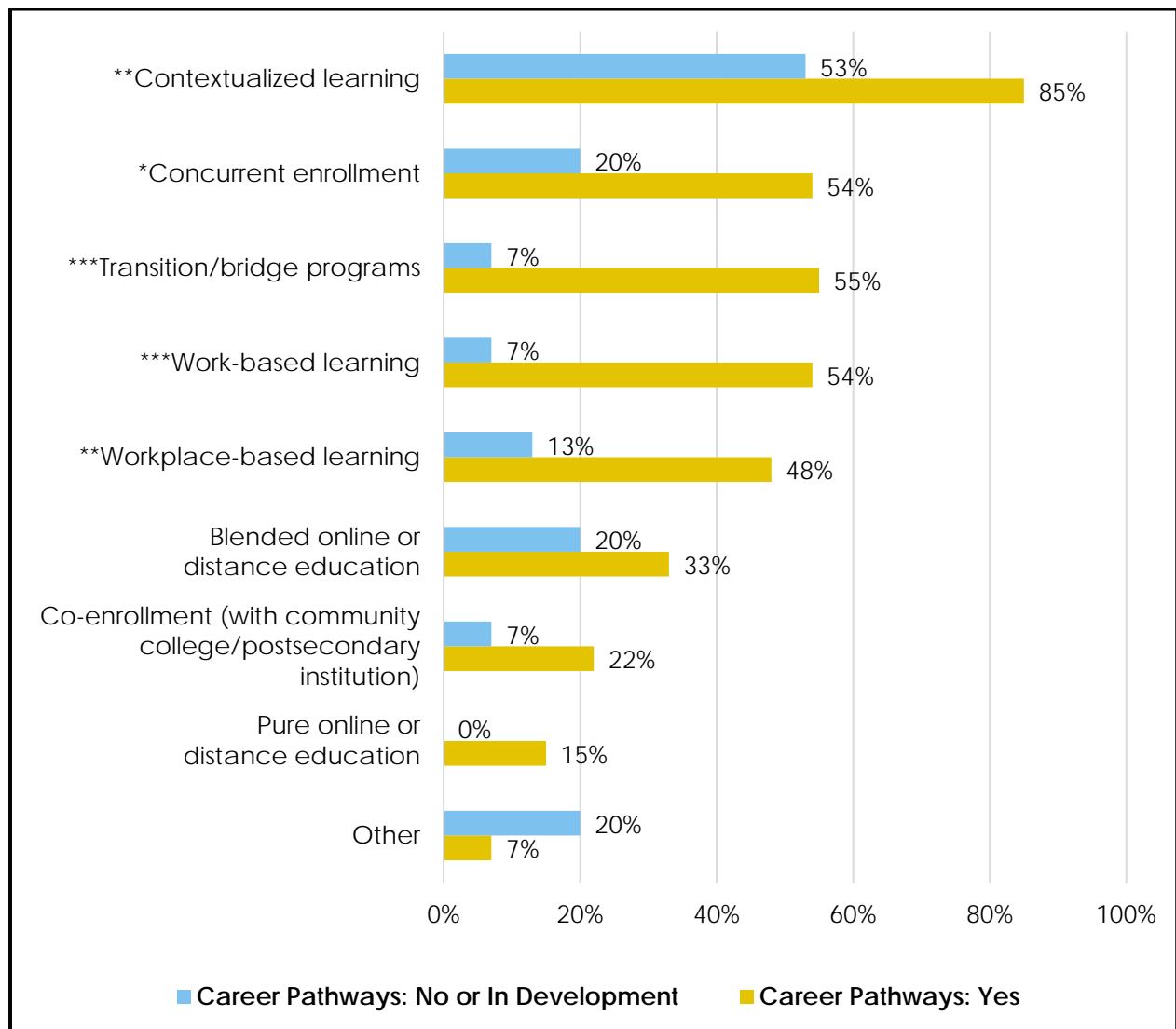
**Figure 32: Instructional Approaches by City (n= 41 to 98)**



\*p ≤ .05

Agencies that said they offered CP were significantly more likely to use contextualized learning, concurrent enrollment, transition/bridge programs, work-based learning (i.e., using work-related problems and materials), and learning in the workplace (see Figure 33).

**Figure 33: Instructional Approaches by whether Agencies Offer CP (n=40 to 97)**

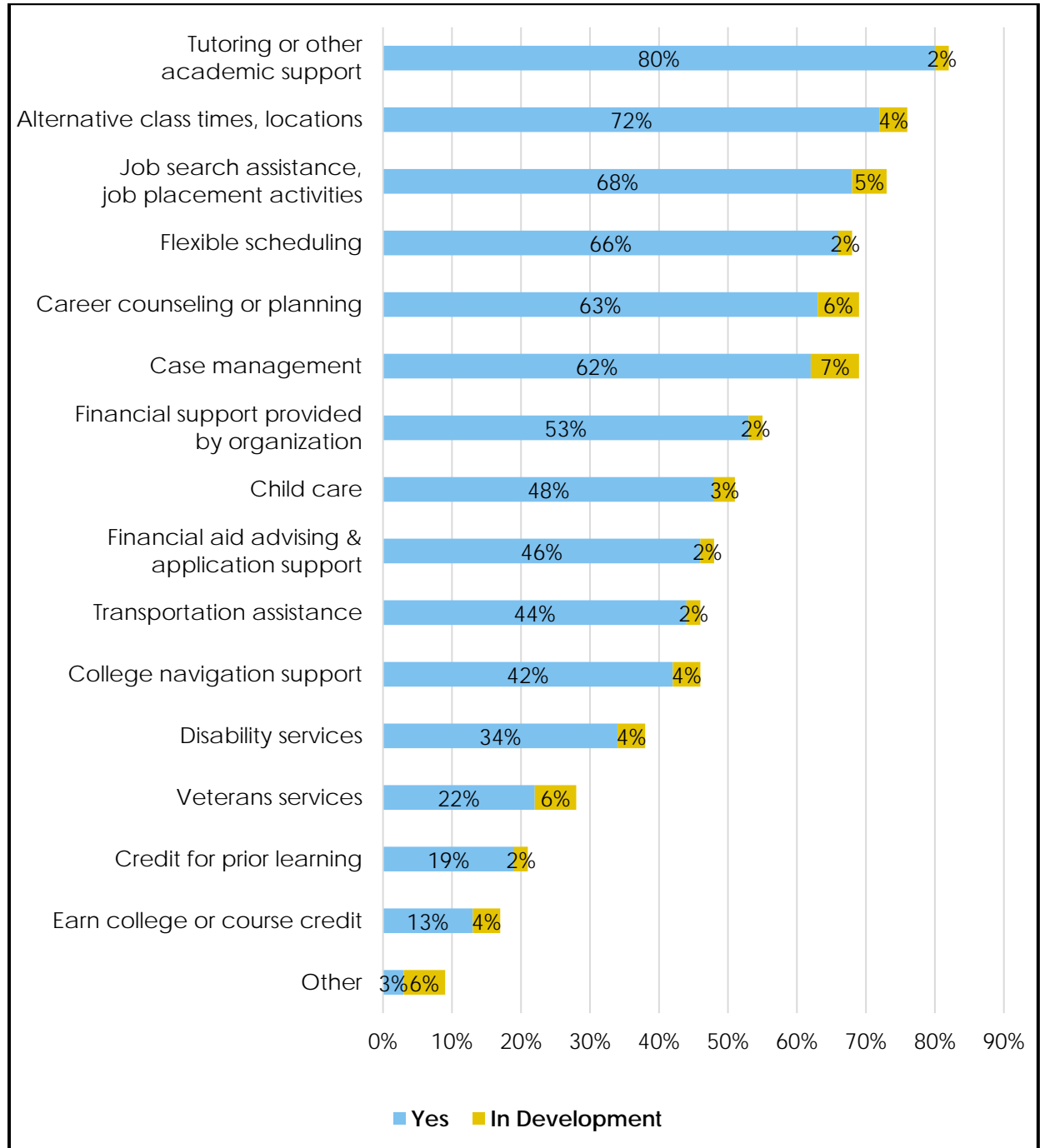


\* $p \leq .05$ ; \*\* $p \leq .01$ ; \*\*\* $p \leq .001$

### SUPPORT SERVICES

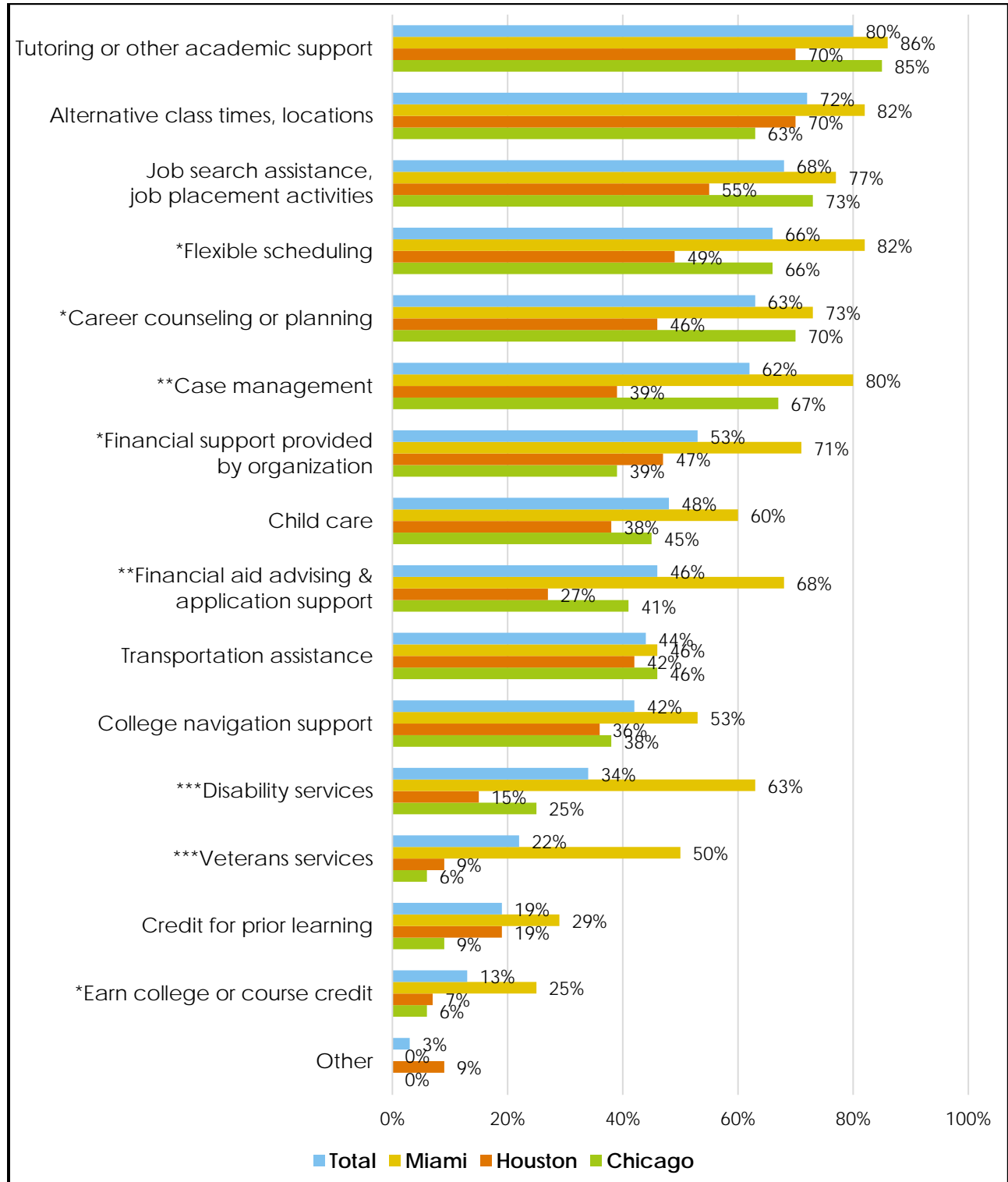
We asked about support services and programmatic features that help adult learners access and complete classes. The most common were tutoring or other academic support (80%), alternatives class times and locations (72%), and job search assistance and placement activities (68%).<sup>12</sup>

Figure 34: Support Services (n=33 to 101)



There were significant differences across cities for eight types of support services, each of which was most common in Miami (see Figure 35). The largest differences between Miami and other cities were for disability and veterans' services.

Figure 35: Support Services by City (n=33 to 101)

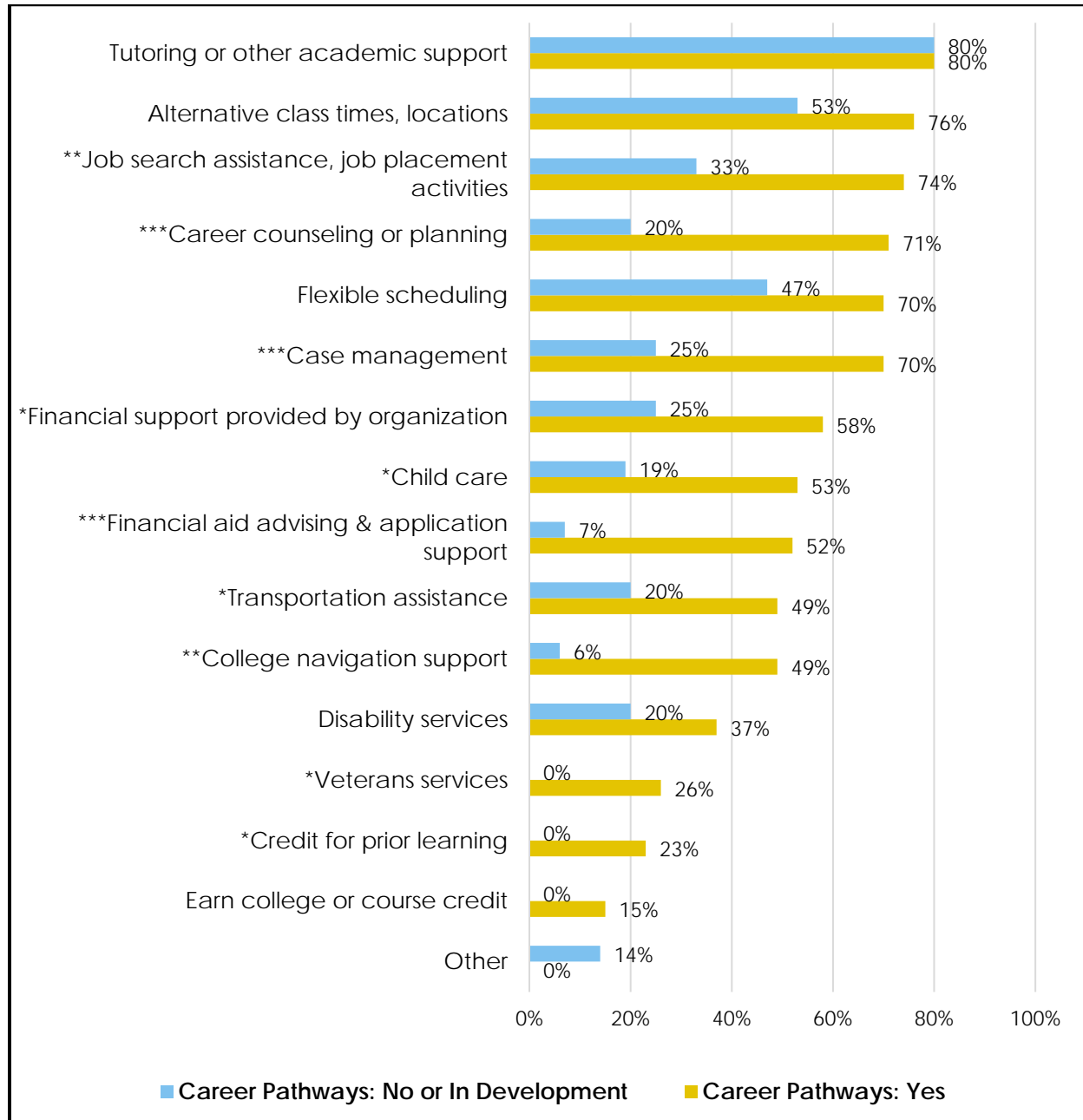


\*p ≤ .05; \*\*p ≤ .01; \*\*\*p ≤ .001

Agencies that said they offered CP were significantly more likely to offer 10 out of 16 support services (see Figure 36). The largest (most significant) differences were for:

- career counseling or planning,
- case management, and
- financial aid advising and application support.

**Figure 36: Support Services by Whether Agencies Offer CP (n=32 to 100)**

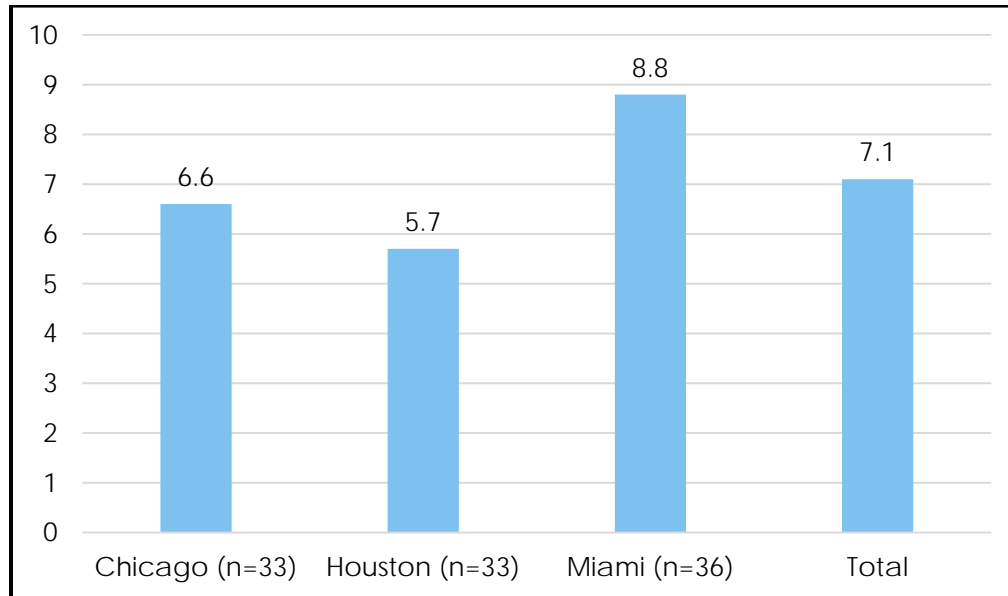


\* $p \leq .05$ ; \*\* $p \leq .01$ ; \*\*\* $p \leq .001$

On average, agencies provided seven kinds of support services. Agencies that said they offered CP provided significantly more support services, on average, than other agencies (7.8 versus 3.4;  $p \leq .001$ ).

Miami agencies offered significantly more support services than other cities ( $p \leq .001$ ; see Figure 37).

**Figure 37: Average Number of Support Services by City**



## STUDENT OUTCOMES

### TYPE OF OUTCOME MEASURE

The lack of common measures is one reason that adult education agencies have difficulty demonstrating their collective impact. We wanted to know which measures adult basic education and CP providers were using to gauge student outcomes and if there were any shared performance metrics within or across cities.

Following CLASP's (2013b) "Framework for Measuring Career Pathways Innovation," our list of 19 measures included interim and longer-term outcomes. Interim outcomes are crucial because they measure progress toward longer-term goals. They also help capture achievements of participants who have substantial barriers to education and employment such as lacking a high school/GED® diploma or low reading, math, or language scores. The measures included in our survey are matched with the corresponding (adapted) CLASP categories below (see Table 2). Note, however, that CLASP's interim outcomes focus only on education, not employment.

On average, 32% of agencies measured the interim outcomes group, compared to 37% for the longer-term outcomes. *Interim education and training outcomes* had the lowest average (30%) and longer-term *pathway education and training outcomes* had

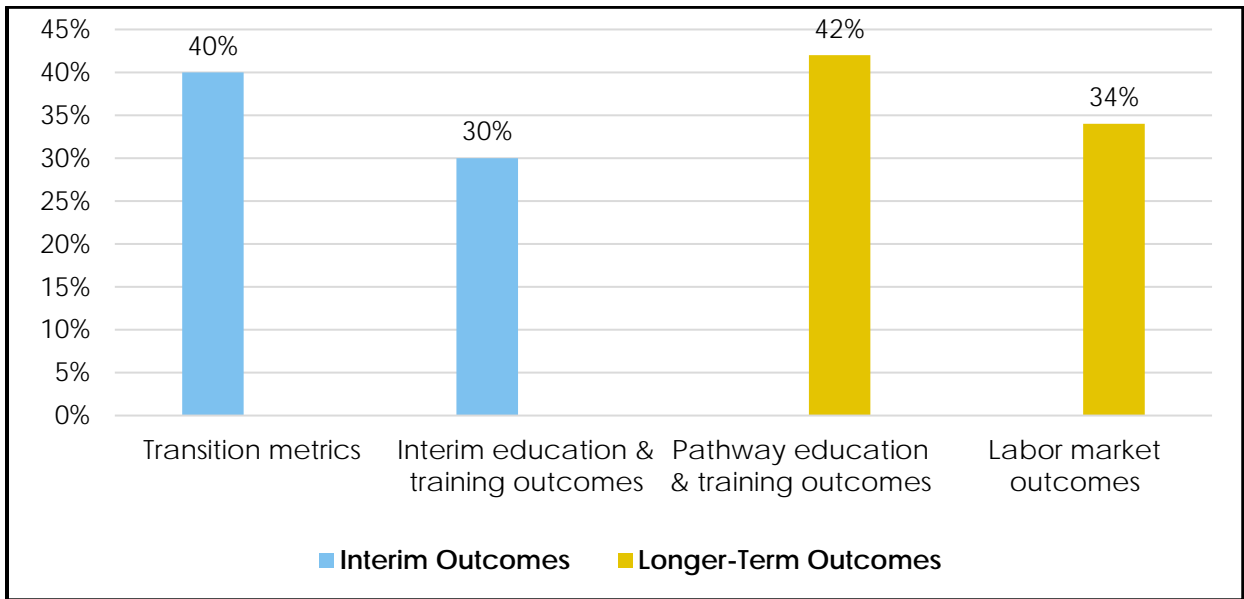
the highest (42%), mainly because two-thirds of agencies measured whether participants passed the GED® Tests or earned a high school diploma.

**Table 2: Measuring Career Pathway Outcomes**

CLASP Category and Corresponding Survey Items	Percentage
<b>1. Interim Outcomes</b>	
1a. "Transition metrics (following participants across education and training funding sources and settings)" (p. 5)	
• transitioned/transferred to tech school or college	42%
• transitioned/transferred to 2- or 4-year institution	38%
1b. Interim education and training outcomes	
• educational level gains on standardized test	85%
• educational gains (teacher/program-created assessment)	46%
• re-enrolled in pathway course (next term)	30%
• completed post-secondary math or English course	17%
• completed postsecondary pathway course	15%
• completed developmental/remedial course (postsecondary)	12%
• accumulated pathway credits	7%
<b>2. Longer-Term Outcomes<sup>13</sup></b>	
2a. Pathway education and training outcomes	
• attained HS/GED® diploma	67%
• attained CP credential	48%
• attained pathway associate degree	11%
2b. Labor market outcomes	
• attained initial employment	55%
• entry-level wage/salary	35%
• employment in student-targeted industry sector	33%
• employment retention	33%
• promotion in employment	31%
• change in income (wages/salary, pre/post)	18%
<b>3. Other</b>	
• Other	23%



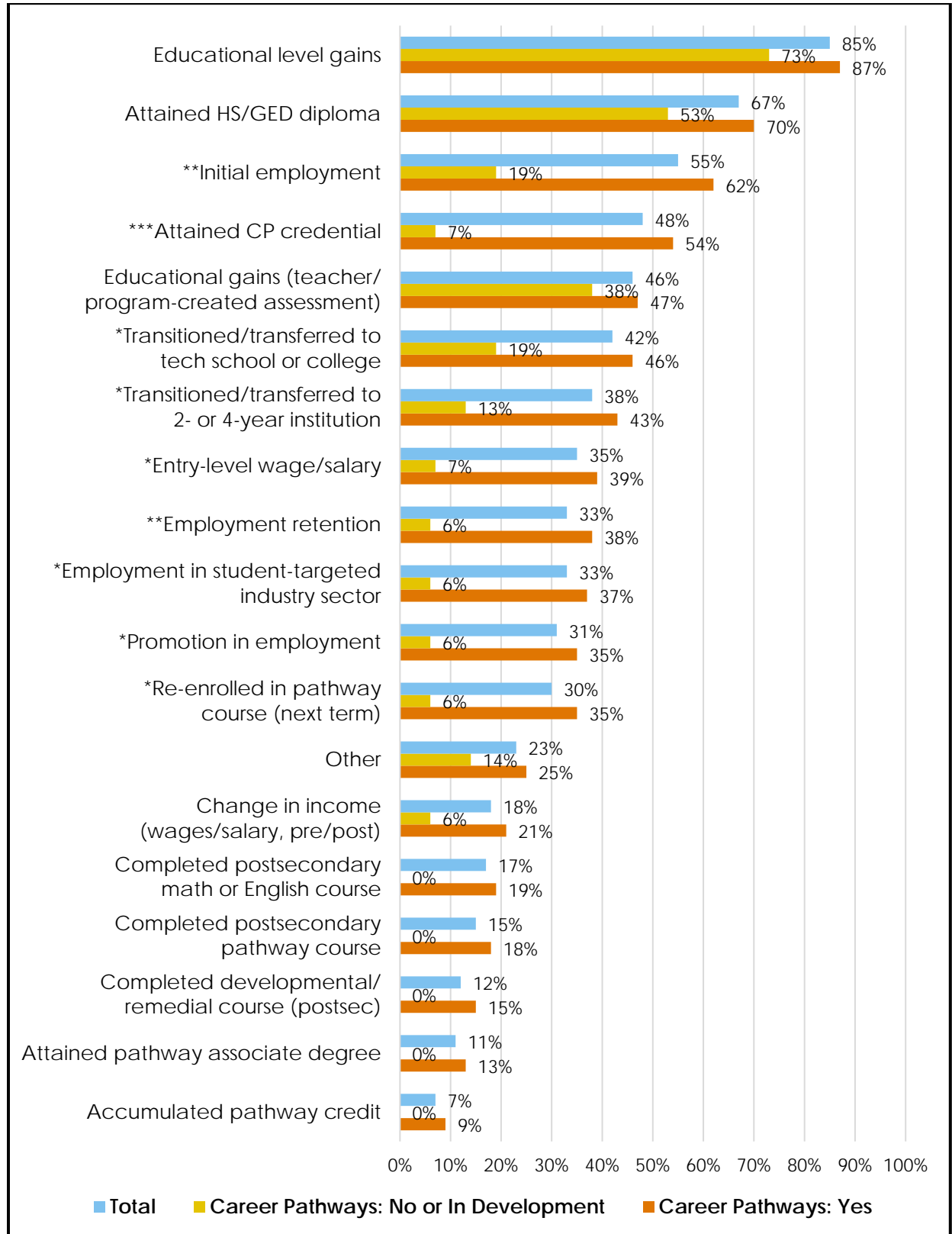
**Figure 38: Average Percentage of Agencies Using Interim or Long-Term Outcome Measures**



The most common measures were educational level gains on standardized tests (a requirement for federally funded programs),<sup>14</sup> attaining a high school or GED® diploma, and obtaining initial employment (see Figure 39).<sup>15</sup>

Agencies that said they offered CP were more significantly more likely to measure nine outcomes, mostly focused on employment, transitions, and CP credentials (see Figure 39). This makes sense because agencies that don't provide CP are not explicitly preparing students for securing employment and entering postsecondary education.

Figure 39: Outcome Measures (n=40 to 100)

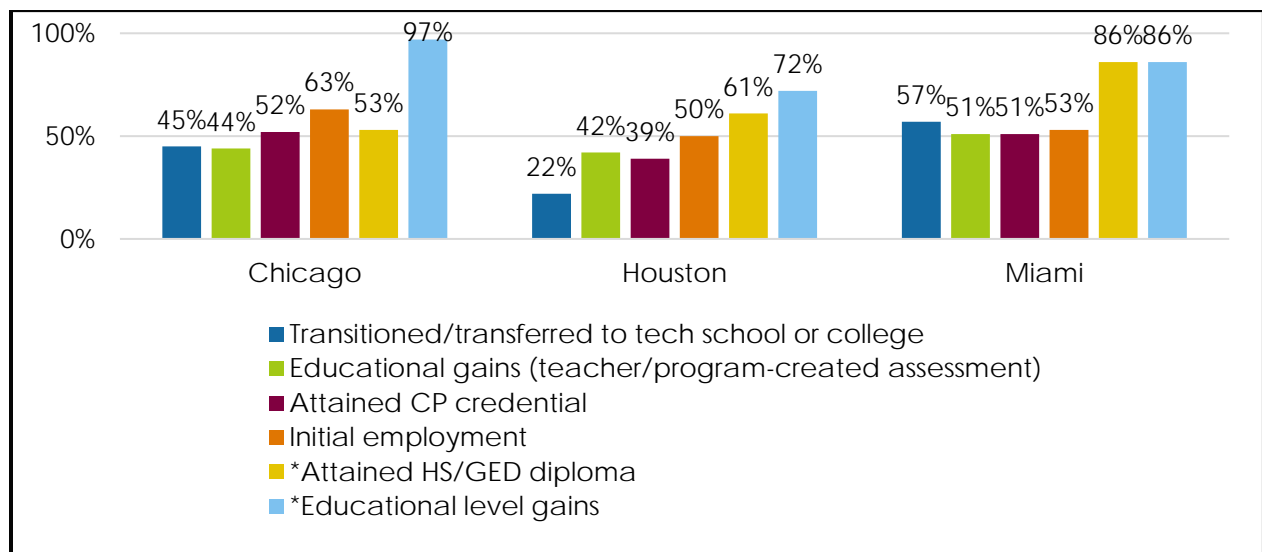


\*p ≤ .05; \*\*p ≤ .01; \*\*\*p ≤ .001

The most common standardized assessment was the TABE (n=23), followed by the BEST (Best Plus or Best Literacy n=16), and CASAS (Comprehensive Adult Student Assessment Systems, n=6). Open-ended comments about instruments used to measure educational level gains, teacher- or program-created assessments, and measures for the “other” category are listed in Appendix K.

There were no common measures across all providers within or across the cities. The six outcome measures that were used by more than 50% of agencies in any city are shown in Figure 40. Cities differed significantly in the percentage that measured obtaining a high school or GED® diploma (most common in Miami) and educational level gains (all but one agency in Chicago measured this outcome).

**Figure 40: Top Outcome Measures by City (n=40 to 100)**



$p \leq .05$

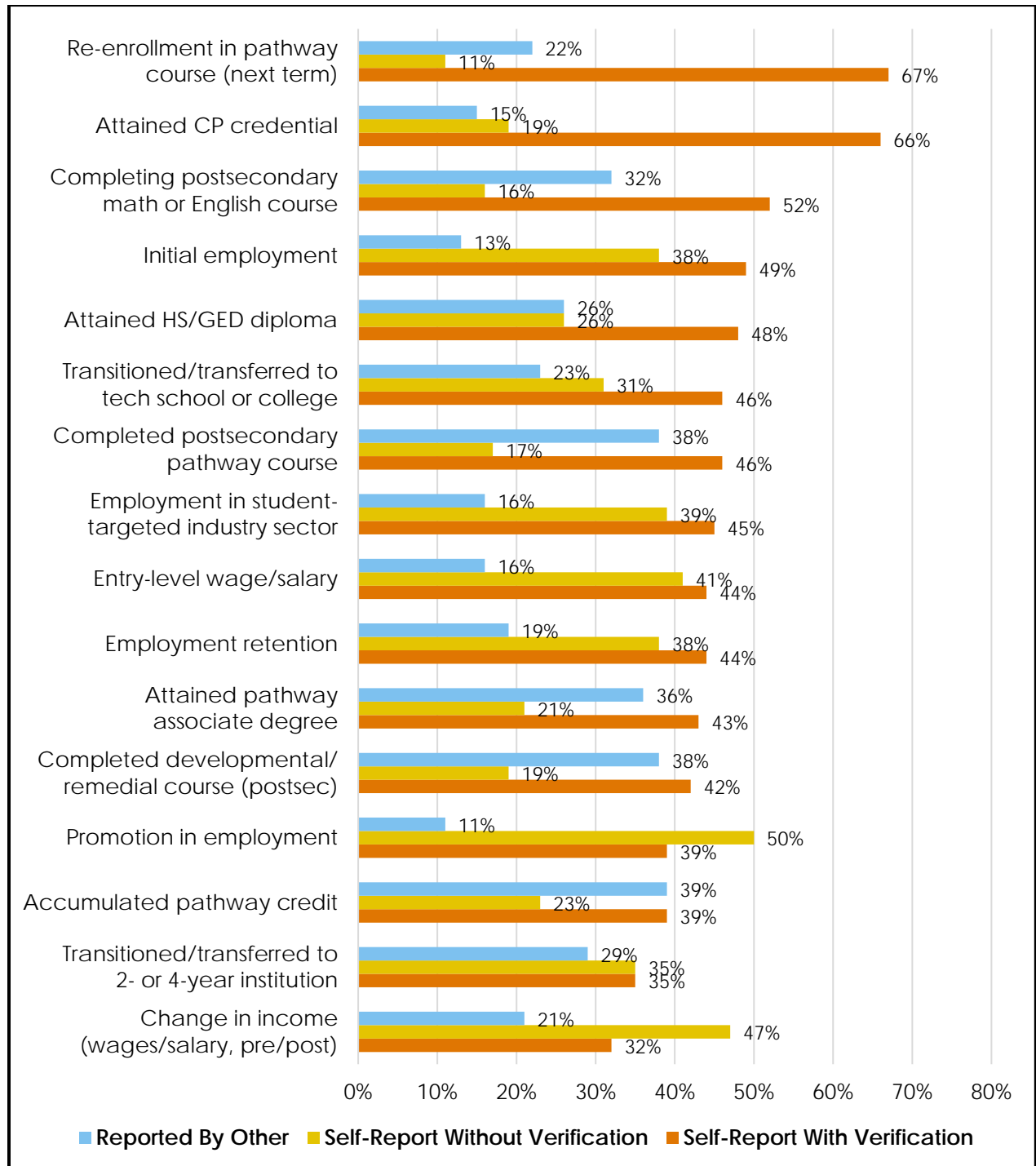
Federally and state-funded programs have to report on mandated outcome measures, but not every survey respondent received federal or state funding, which helps explain why there were no common measures in any city. In addition, the survey responses for Miami may have been influenced by their system of adult education provision. In Chicago and Houston, many CBOs are direct service providers that receive their own funding and run their own CP programs. In Miami, some CBOs and other providers (homeless shelters, etc.) receive supplemental state funding via the school district. They are host organizations (sites) responsible only for providing and measuring the wraparound services, while the school partner provides the instructor and provides all formal testing, instruction, and record-keeping related to academic progress. Thus, these respondents may not have known that their organization uses Florida’s standardized adult education measures.

## *OUTCOME DATA VERIFICATION*

The most common way to collect outcome data was self-report with verification such as documentation from an employer or postsecondary institutions (46%). Twenty-nine percent of the outcomes were self-report without verification, and 25% were reported by other institutions (e.g., employer or postsecondary institution, data collected by state or federal government agencies such as Bureau of Labor Statistics via wage records). Thus, respondents require verification or use data from another institution for 71% of the outcomes that they measure.

Re-enrolling in a pathway course for a subsequent term and attaining a CP credential were the top items under self-report with verification (67% and 66%, respectively). The top two items under self-report without verification were promotion in employment (50%) and change in income from wages or salary (47%). The outcome data most commonly gathered from other institutions were accumulating pathway credits (39%), completing a postsecondary pathway course (38%), and completing a postsecondary developmental or remedial course (38%).

**Figure 41: Methods for Collecting Data on Student Outcomes (n=19 to 65)**



**REPORTING DATA TO OTHER ENTITIES**

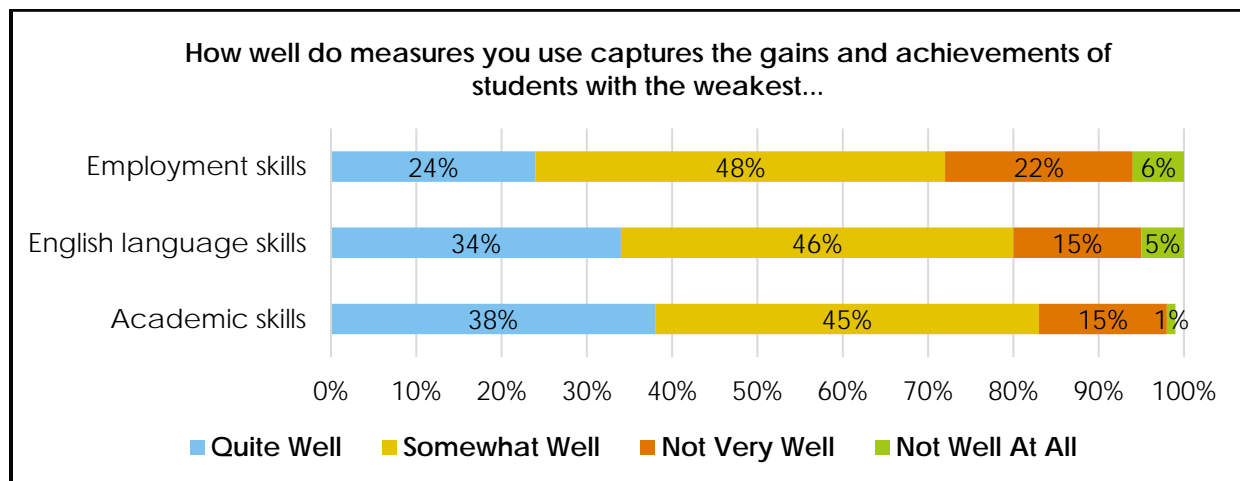
Forty-percent of respondents said that the data they reported in the survey was also reported to another adult education program (e.g., local school district or community

college). These entities included the Illinois Community College Board (ICCB, n=8), Miami-Dade County Public Schools (n=8), Houston Center for Literacy (n=6), Houston Community College (n=3), other community colleges (n=2), Texas Workforce Commission (n=1), donors and funders (n=1), board members (n=1), and accrediting institutions (n=1).

### ADEQUACY OF MEASURES

Adult education providers often comment about the inadequacy of measures to capture their students' accomplishments. We wanted to know what the survey respondents thought about the measures they used, especially in reflecting the achievements of students who struggled the most with academic, English language, and employment skills. Thirty-eight percent of respondents thought that their measures did "quite well" at capturing the gain and achievements of students with the weakest academic skills, compared to 34% for English language skills and 24% for employment skills. For each type of skill, 72% to 83% thought their measures did "somewhat" or "quite" well.

**Figure 42: Methods for Collecting Data on Student Outcomes (n=85 to 86)**



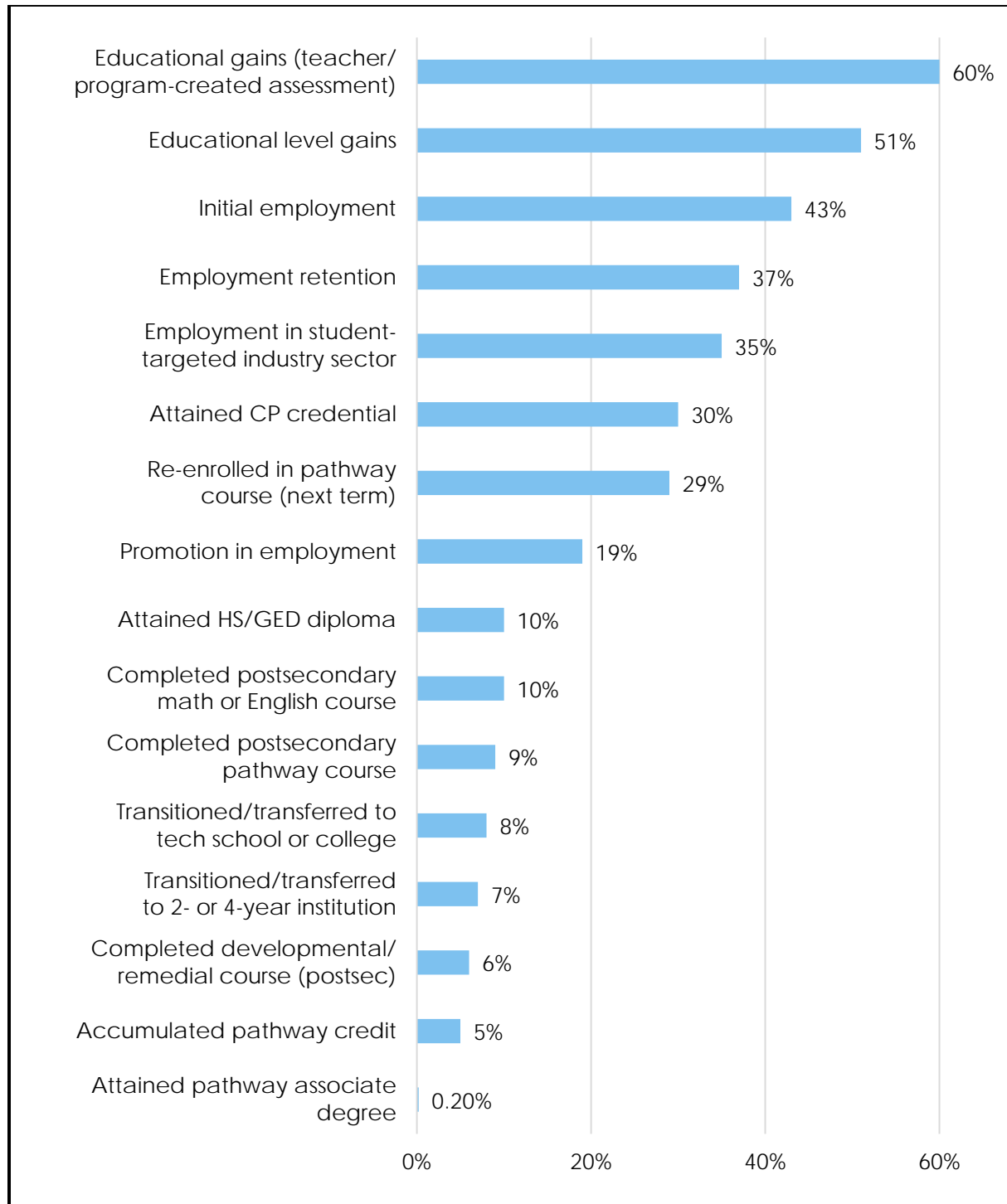
### AGGREGATE OUTCOMES

Respondents were asked to report the number and percentage of students in 2014-15 who attained each of the outcomes that the agency measures. For instance, if Agency A measured three outcomes—educational level gains, obtaining a high school or GED® diploma, and initial employment—then they reported aggregate data only on those three outcomes. Out of 106 respondents, 76 (66%) reported aggregate outcomes. Because programs used different denominators in calculating the percentages, the following figures should be interpreted as rough estimates.<sup>16</sup> The outcomes with the

highest average outcomes were educational gains on teacher- or program-created assessments (60%), educational level gains (51%), and initial employment (43%).

The average entry-level wage was \$10.62 per hour (n=18).

**Figure 43: Average Aggregate Outcomes**



# FOCUS GROUP AND CASE STUDY FINDINGS

## RESEARCH QUESTIONS

Data from focus groups with adult education providers and case studies of six organizations (two per city) were used to answer the following research questions:

1. How do selected programs design and implement CP programming?
2. Within each city, which policies and practices shape (a) CP programming and (b) coordination across systems?
3. Which programmatic features, policies, and other factors contribute to student success?

## METHODS

### *FOCUS GROUPS*

Focus groups with adult education providers were used to investigate how specific policies and practices have shaped CP implementation and coordination in each city. After collecting the survey data, we selected providers that (a) were nominated by survey respondents (“Identify the adult education program(s) in your city that offer(s) the most successful CP programming”), (b) were recommended by city partner agencies, and/or (c) reported successful CP outcomes on the survey. In addition, we chose agencies that represented the main adult education providers in each city (community college, CBO, or school district) and that served different neighborhoods and student populations.

Staff from five to seven providers in each city participated in a focus group in spring 2016, for a total of 18 providers (Table 3). Representatives from several other organizations were invited, but were unable to attend. In some cases, more than one person from an agency attended the focus group. The focus groups were audio-recorded, transcribed verbatim, coded, and analyzed to answer the research questions.

Focus group participants described their agencies as primarily serving adult basic education learners and immigrants or English language learners. Dislocated workers, unemployed and underemployed persons, and Latinos were also mentioned across all three cities. Inmates and youth were mentioned only in Miami.



**Table 3: Focus Group Participants**

Chicago	Houston	Miami
City Colleges of Chicago	Alliance for Multicultural Community Services	American Adult and Community Education Center (school district)
Erie Neighborhood House	Harris County Department of Education	D.A. Dorsey Technical College (MDCPS)
Greater West Town Partnership	Houston Center for Literacy	Lindsey Hopkins Technical College (MDCPS)
Heartland Alliance	Memorial Assistance Ministries	Miami Dade College
Instituto del Progreso Latino	Neighborhood Centers	Miami-Dade Department of Corrections
Jane Addams Resource Corporation		OIC of South Florida
		South Dade Technical College (MDCPS)

*CASE STUDIES*

Through a review of survey and focus group data and discussion with our city partners, we selected two organizations per city that had exemplary CP programs<sup>17</sup> and that served students with lower educational attainment.<sup>18</sup> Organizations also represented different organizational types (i.e., the main adult education provider types in each city), occupational sectors, student populations, and neighborhoods (Table 4). For example, since the majority of studies on CP focus on healthcare, our sample intentionally includes other sectors.

In organizations that offered more than one CP class, we selected those that, according to program staff, had the best outcomes (e.g., completion and job placement rates) and that either did not require a high school/GED® diploma or had a higher proportion of students with no college experience. In addition, students in CP classes such as healthcare, childcare, and office support are predominantly female, whereas manufacturing, construction, and transportation classes are primarily male. Our selection of CP classes ensured a mix of male- and female-dominated occupations.

The final sample included the following organizations:

### Chicago

**City Colleges of Chicago (CCC) – Malcolm X College** (one of six campuses that offer “Career Bridge” programs). Since CCC’s reorganization, each campus now offers a Career Bridge program in one or two occupational sectors. Administrators recommended the Healthcare Career Bridge at Malcolm X because it is the largest Bridge program.

**Jane Addams Resource Corporation** (JARC, Ravenswood location; other sites at the time of the study were Addison [a Chicago suburb] and Baltimore).<sup>19</sup> JARC’s sole occupational focus is manufacturing.

### Houston

**Alliance for Multicultural Community Services** (Alliance). Among Alliance’s CP offerings, we selected CNA and AutoCAD because both were being offered in fall 2016 and CNA attracts more participants with no postsecondary education.

**Houston Community College – Community-Based Job Training Program.** This grant-funded program included eight “training pathways.”<sup>20</sup> All classes were offered at CBOs. We selected two CBOs in different neighborhoods that offered CP classes that attracted students with lower levels of education:

**AVANCE:** General Office Support Specialist (GOSS)

**Chinese Community Center:** CNA

### Miami

**Lindsey Hopkins Technical College** is governed by Miami-Dade County Public Schools. We chose three CP classes that do not require a high school degree and that have 90-100% job placement rates: nutrition and dietetic clerk, automotive service technology (a regular class and an on-site class at Braman Motorcars), and commercial foods and culinary arts.

**Miami Dade College** (MDC). We chose the Hialeah campus because it serves lower-income students, primarily Latinos. The case study focused on the FICAPS program (see below), which included three occupational tracks in 2015-16: TRAMCON (manufactured construction, offered only at North campus), business (School of Business college credit certificates), and healthcare (Behavioral Health Technician or Community Health Worker noncredit certificates). We collected data on TRAMCON and business.

**Table 4: Case Study Sample Overview**

	Chicago		Houston		Miami	
	JARC	Malcolm X	Alliance	HCC	Lindsey Hopkins	MDC – Hialeah
<i>Occupational Sector</i>						
AutoCAD			Yes	X	X	
Business						Yes
Construction					X	Yes
Education and childcare			X	X	X	
Food					Yes	
Healthcare		Yes	Yes	Yes	Yes	X
Manufacturing	Yes		X	X		
Office management				Yes		
Technology/IT				X	X	
Transportation, automotive			X	X	Yes	
Other sectors			X	X	X	
<i>Organizational Type</i>	CBO	CC	CBO	CC (CBO sites)	School district	CC
<i>Primary Populations</i>						
Immigrants	X	X		X	X	X
Refugees			X		X	X
U.S.-born minorities	X	X		X	X	X
Ex-offenders	X				X	

*Key: Under occupational sector, X = organization offers class in this sector, but class was not included in case study. Yes = focus of case study. CC = community college.*

Two Penn State researchers (Prins, Clymer, and/or Toso) spent 2 to 2.5 days at each site in fall 2016. The following data were collected:

- Observed 18 classes (3-5 per site), for a total of 11 hours.
- Conducted 44 interviews with 56 people (6-9 interviews per site), including CTE and basic skills teachers, administrators, support staff, and key partners (e.g., employer). Interviews lasted 17 to 73 minutes (average = 42 minutes).
- Held three focus groups with 53 students (3-13 students per site) and one interview with a student who could not attend focus group. Focus groups lasted 44 to 77 minutes (average = 63 minutes). All but a few students were U.S.-born minorities, immigrants, or refugees. Ages ranged from late teens to 50s.

- Collected program documents (e.g., curricula, promotional materials, websites, annual reports, class schedules).

The focus groups and interviews were audio-recorded, transcribed verbatim, and transferred to an NVivo (qualitative data analysis software) file. All the data were coded for the purpose of answering the research questions.

Agency staff and students were given the option of using pseudonyms or real names. All the agency staff gave permission to use real names for themselves and their organization. Pseudonyms are used in the report for students who chose this option.

## ORGANIZATIONAL PROFILES

This section summarizes key features of each organization and the CP classes we studied. The descriptions reveal the diversity in CP approaches across organizations.

### *CITY COLLEGES OF CHICAGO – MALCOLM X COLLEGE*

**Overview:** City Colleges of Chicago was involved in the Joyce Foundation’s Shifting Gears initiative,<sup>21</sup> and works closely with the Illinois Community College Board and Women Employed, a non-profit, on CP development and implementation. The CP framework offers three entry points for adults without a high school degree:

- Career Foundations (4.0 to 4.9 TABE), launched in 2014;<sup>22</sup>
- Career Bridge (6.0-8.9 TABE reading and 5.0-7.9 TABE math), began in 2012; and
- Gateway (9.0+ TABE reading and 8.0+ TABE math).<sup>23</sup>

This study focused on the Career Bridge program (hereafter, Bridge).

**Occupational sector(s):** Healthcare.<sup>24</sup>

**Student population and entry requirements:** Bridge students are primarily U.S.-born minorities and immigrants.<sup>25</sup> Focus group participants (all women) included students with criminal records, recovering addicts, and mothers with young children. Participants do not need a high school or GED® diploma. TABE requirements are noted above.

**Primary goals:** Bridge classes prepare students to earn a high school equivalency (HSE) degree while learning about careers in the healthcare sector, and equip students to transition to credit community college courses.

**CP components, sequence, and length:** The 32-week (2-semester, 512-hour) program begins in the fall with health-contextualized language arts and math classes in preparation for the HSE exam. In the second semester, all Bridge students take the same credit class at no cost, along with the math and language arts classes.

**CP credentials, certifications, and other primary outcomes:** Students who pass the HSE exam earn a HSE diploma. The goal is for Bridge students to take credit courses in healthcare at Malcolm X after completing the program.

**Curriculum:** During the first eight weeks students learn about healthcare career options (e.g., CNA, LPN) and stackable credentials. The basic skills classes include computer and test-taking skills. Social studies and science are integrated into the courses. The curriculum was developed in partnership with Women Employed.<sup>26</sup> CCC's curriculum specialist develops the contextualized language arts curriculum for Bridge programs at all campuses. The math curriculum is developed by a team and is not contextualized.<sup>27</sup>

**Staffing:** Bridge instructors are part-time CCC employees. Lesson plans are extremely detailed, so basic skills classes can be taught by instructors with no expertise in healthcare (or other sectors). In addition to Bridge language arts and math teachers, there are one to three "transition specialists" at each campus (a total of nine serving six campuses in 2016-17). They meet with Bridge students about four times per semester to assist with recruitment, intake and orientation; they also advise students on transitioning to credit courses and connect students with support services. In case staffing meetings, math and language arts teachers, a transition specialist, and an administrator discuss each Bridge student's progress.

**Support services:** All Bridge students have access to a transition specialist and a free credit class. They are also eligible for the same supports as credit students: academic support center (tutoring in reading, math, writing, other subjects), wellness center (e.g., counseling, flu shots, connections to public aid and community resources), disability center, career planning and placement center, on-site childcare (sliding scale), free pre-K Head Start (if income eligible), and public transportation cards, when available, for students with good attendance and in time-intensive programs, such as the Bridge.

**Notable features:**

- Low academic threshold for accessing career pathways classes.
- Three entry points for students without a high school degree, with preparation and supports to transition to credit courses in the healthcare sector.
- Partnership with Women Employed to develop and implement contextualized language arts curriculum.

### *JANE ADDAMS RESOURCE CORPORATION (JARC)*

**Overview:** JARC, a CBO, has used a sectoral model of workforce development since the 1990s. Our study focused on the Bridge and Careers in Manufacturing classes at the original Ravenswood location. JARC also provides basic literacy tutoring for participants and incumbent worker training for employers.<sup>28</sup>

**Occupational sector(s) included in the study:** manufacturing – welding, computer numerical control (CNC), and press brake.

**Student population and entry requirements:** Participants are low-income adults and workers.<sup>29</sup> Minimum TABE reading and math requirements are 9.0 for welding and CNC and 7.0 for press brake. Students who score above 5.0 and below the threshold enroll in the Bridge class. Those who score below 5.0 are placed in adult literacy tutoring.

**Primary goal(s):** To place students in welding, press brake, and CNC jobs (high-demand, living-wage jobs) and to help them achieve financial stability.

**CP components, sequence, and length:** Classes are open enrollment. The 12-week (192 hour) Bridge class focuses on math and reading. After meeting the TABE requirement, students enroll in CNC (20 weeks, 500 hours), press brake (10 weeks, 250 hours), or welding (14 weeks, 350 hours). After graduating, students can return to practice and train on manufacturing equipment.

**CP credential, certifications, and other primary outcomes:** Students earn industry-recognized credentials (National Institute for Metalworking Skills or American Welding Society certifications) and are placed in middle-skills manufacturing jobs.

**Curriculum:** The instructional hallmarks are peer tutoring and a simulated work environment (e.g., clocking in, student designated as shift manager). Staff revise the curriculum and program offerings based on interactions with employers, incumbent worker training, and labor market assessments. Manufacturing students attend mandatory soft skills and financial literacy workshops on Fridays (not available for Bridge students).<sup>30</sup> Digital literacy instruction is also offered. The Bridge class is contextualized, and manufacturing-related math is incorporated into the training classes.

**Staffing:** All instructional and support staff are JARC employees. The majority of their manufacturing instructors are JARC graduates with industry expertise. In the simulated work environment, program coordinators are the “boss”: they assist with enrollment and paperwork, oversee attendance, and monitor student progress. Employment coaches identify barriers to program completion and employment retention, advocate for trainees’ needs, connect them to support services, and teach job search and soft skills (e.g., interviewing, conflict resolution). Job developers conduct individualized job placement. These staff meet bi-weekly to discuss every trainee’s progress. Financial coaches meet individually with trainees and teach weekly financial literacy workshops.

**Support services:** Bundled support services are provided by the on-site Center for Working Families (CWF)<sup>31</sup> and other JARC units. CWF provides financial counseling and literacy (e.g., credit score review, access to credit-building products), digital literacy classes, and access to income supports (e.g., screening for public benefits).<sup>32</sup> Manufacturing students are required to meet with the job developer and employment

and financial coaches. Other supports include free transportation, \$5 Chicago bike sharing membership, equipment, certification testing fees, emergency fund for women, financial incentives for job placement and retention, and referrals for other issues.

**Notable features:**

- Bundled support services through the Center for Working Families.
- Lifetime access to manufacturing equipment and support services.
- Personalized, intensive job placement services and strong employer relationships.
- Emphasis on women in manufacturing.

*ALLIANCE FOR MULTICULTURAL COMMUNITY SERVICES (ALLIANCE)*

**Overview:** Alliance is the largest refugee resettlement agency in Texas. In addition to career-technical classes, Alliance provides a variety of refugee resettlement, employment, financial, interpreter, and community services.

**Occupational sector(s) included in the study:** CNA and AutoCAD. Additional classes include commercial truck driving (CDL), child development, plant design management system, and security guard.

**Student population and entry requirements:** Nearly all students are refugees. The CNA class includes some U.S.-born students. Students must have a high school degree or equivalent and at least a 6.0 TABE in reading and math and a 4.0 in language. Students with lower scores are placed in ESL (face-to-face or online).

**Primary goal(s):** To place students in high-demand CNA and Auto-CAD jobs and to help them achieve financial stability.

**CP components, sequence, and length:** CNA students take a 4-week contextualized basic skills class, followed by the 4-week CNA (technical) class (180 hours total). AutoCAD students are concurrently enrolled in a basic skills class and a technical class (10 weeks, 160 hours). The concurrent or sequential format is determined by funders.

**CP credential, certifications, and other primary outcomes:** CNA students receive a certificate of completion and are eligible to take the state CNA exam. AutoCAD students receive a professional user certification.

**Curriculum:** Basic skills instruction is embedded in work-related topics such as customer service, goal setting, resume and cover letter-writing, soft skills, and career information (e.g., job availability, industry sectors). The basic skills teacher developed the curriculum for this class. Technical class curricula were developed by Houston Community College. Students who need extra English language assistance study online via Burlington English Career Pathways (distance learning). Computer classes are available.

**Staffing:** The basic skills teacher is an Alliance employee. C.N.A teachers are provided by Sterling Healthcare, and AutoCAD teachers are Houston Community College employees with content area expertise. Employment coaches track attendance and student progress, alert students to employment and education opportunities, provide career planning and counseling (e.g., mock interviews, employer expectations), coordinate with income support coach, and discuss job readiness in basic skills classes. Financial coaches conduct financial literacy workshops, provide one-on-one financial counseling (e.g., budgeting, credit reports), and help students access financial services such as credit-building products (e.g., Small Business Administration loans, matched savings account).

**Support services:** The Financial Opportunity Center (FOC), one of five in Houston, provides on-site bundled supports.<sup>33</sup> To increase persistence, students must choose at least two out of three services: financial coaching, employment coaching, or access to income supports. Students meet with their coach at least monthly. FOC services are available to income-eligible Houston residents. Other support services through Alliance include Dress for Success and Career Gear (professional attire for interviewing), Affordable Care Act navigators, and evaluation of foreign education and credentials (through SpanTran).

**Notable features:**

- Bundled support services through Financial Opportunity Center.
- Focus on refugees.
- Employment-related skill development is reinforced through basic skills class and employment coaches.

### *HOUSTON COMMUNITY COLLEGE (HCC)*

**Overview:** Our study focused on the Community-Based Job Training Program, a state grant program that allowed HCC to offer career-technical classes at community sites. HCC provided the CTE teacher and curriculum, while CBOs recruited participants and provided classrooms, basic skills instruction, additional wraparound services, and all other components. Common features of the grant program are listed below. In addition to this grant, HCC offers many occupational classes at its campuses.

**Occupational sector(s) included in the study:** General Office Support Specialist (GOSS) and CNA.

**Student population and entry requirements:** The grant recruited students who were considered “not college ready.” Students were required to have a high school diploma or equivalent and a TABE score between 6.0 and 11.9. All the GOSS and CNA participants we met were women, including immigrants and U.S.-born minorities.



**Primary goal(s):** job placement or transition to postsecondary education.

**CP components, sequence, and length:** Students took a contextualized basic skills class and a career-technical class.

**Curriculum:** The career-technical curricula were developed by HCC and the basic skills curricula by the CBOs.

**Staffing:** HCC provided the career-technical teacher. Other staff were CBO employees.

**Support services:** All students are eligible for HCC services such as disability services, veterans' services, personal and career counseling, academic skills enhancement, crisis intervention, student job placement, and job fairs. Books, CNA exam fees, materials, and supplies (e.g., uniform, watch, and stethoscope) were covered by the state grant.

**Notable features:**

- Community-college CBO partnership.
- Focus on adults who have a high school degree but are not college ready.
- HCC's CNA program has the highest CNA exam pass rate in Texas.

Distinctive features of the two CBO sites are described below.

## AVANCE

**Overview:** AVANCE is a CBO that provides comprehensive services in adult education, fatherhood, healthy marriage, parent education, and early childhood education. GOSS is the only occupational class offered at AVANCE.

**Occupational sector(s) included in the study:** General Office Support Specialist

**Student population and entry requirements:** GOSS participants included community residents, participants in other AVANCE programs, and parents of children in Head Start or Early Head Start.

**CP components, sequence, and length:** Students take two concurrent classes: basic skills and GOSS. The program is 12 weeks (272-292 hours: 192 GOSS and 80-100 basic skills).

**CP credential, certifications, and other primary outcomes:** Office skills certificates (one for each of the four components listed below).

**Curriculum:** The GOSS class covers four sequential topics: keyboarding, Microsoft Office-basic, Microsoft Office-advanced, and customer service and office skills.

**Staffing:** GOSS teachers are hired by HCC. The basic skills teacher and other staff are AVANCE employees. The program manager conducts recruitment, enrollment, testing, and orientation, connects students with resources, and monitors their progress. The workforce director provides support services and career-related workshops in class (e.g., resume writing, interviewing, job searching).

**Support services:** Services include on-site preschool for participants' children, family-strengthening classes, and Dress for Success/Career Gear. Other services are via referral.

### *CHINESE COMMUNITY CENTER (CCC)*

**Overview:** CCC is a CBO that provides comprehensive social and educational services for children, youth, adults, and seniors, as well as community and cultural programs. In addition to the CNA class, CCC offers a Medical Billing Office Professional class.

**Occupational sector(s) included in the study:** CNA.

**Student population and entry requirements:** CCC serves adults from all over Houston. The majority of CNA students are African American or Latina.

**CP components, sequence, and length:** Students take a basic skills class, followed by a CNA class. The program is 8 weeks (188-208 hours: 108 CNA and 80-100 basic skills).

**CP credential, certifications, and other primary outcomes:** Students are eligible to take the state CNA exam.

**Curriculum:** The writing portion of the basic skills class is contextualized to healthcare, but the reading and math are not. The 108-hour CNA class includes 60 hours of theory, a 44-hour clinical rotation, and four hours of testing and a mock drill.

**Staffing:** The basic skills teacher is hired by CCC and the CNA teacher is a Houston Community College employee. Employment, financial, and income support coaches from the Financial Opportunity Center play the same roles as those at Alliance (above).

**Support services:** The FOC's support services are the same as those at Alliance. Dress for Success/Career Gear is also offered.

### *LINDSEY HOPKINS TECHNICAL COLLEGE*

**Overview:** Lindsey Hopkins Technical College is one of more than two dozen adult education centers governed by Miami-Dade County Public Schools. LHTC offers 21 certificates or licenses in the following sectors: architecture and construction (4), arts, audio-visual technology, and communication (2); health science (5); hospitality and tourism (4); beauty (2); information technology (1); and transportation, distribution, and logistics (2).

**Occupational sector(s):** Nutrition and dietetic clerk, automotive service technology (AST – general and Braman), and commercial foods and culinary arts.

**Student population and entry requirements:** Students include low-income adults and workers, dual-enrolled high school students, immigrants, refugees, and students who are homeless, veterans, or have disabilities. All CTE programs require a CASAS Level 3 or any TABE score. Per state policy, to exit the CTE program students must pass TABE Level 9 (reading and language) and 10 (math) or pass Automotive Service Excellence or other relevant certifications. To enroll in Braman AST, students must be ages 18-25 and have a high school diploma or equivalent.

**Primary goal(s):** Job placement.

**CP components, sequence, and length:** All students in school district CP programs complete a 12-hour orientation that entails career exploration, goal setting, and an electronic portfolio. Nutrition students take an 8-week occupational class and complete an 8-week practicum (300 hours total). The culinary program (18 months, 1200 hours) includes an occupational class. After an 8-month occupational class (open enrollment), General AST students complete an internship. This program is up to 18 months (1800 hours), depending on the number of certifications. The Braman AST program (cohort) includes on-site classes at the Braman Automotive Training Center and a paid internship at the luxury car dealership (13 months, 1050 hours).<sup>34</sup> If needed, students may take a concurrent GED® course or attend a basic skills remediation lab to improve their TABE scores (to exit program).

**CP credential, certifications, and other primary outcomes:** AST students obtain Automotive Service Excellence certifications; for each they receive three transfer credits to Miami Dade College (up to 24 credits). More than 75% of Braman students are hired at the dealership, and the rest are hired elsewhere. Students in the other two programs receive certificates. All students receive occupational completion point certificates.<sup>35</sup>

**Curriculum:** The AST program is state-certified by the National Automotive Technical Education Foundation. AST combines lectures, demonstrations, hands-on practice, interactive online instruction (CDX Automotive), and contextualized math. The nutrition and dietetic clerk program includes 8 weeks of occupational instruction and an 8-week practicum. A dietary managers course is offered for students who want to advance. Hands-on instruction for the culinary arts classes is provided at kitchen stations, where students learn about and prepare food for the Lindsey Hopkins cafeteria and catering. The class includes lectures and contextualized instruction. Both the dietary clerk and culinary classes include employability skills.

**Staffing:** Staff include basic skills/GED® teachers, occupational teachers, counselors, and case managers. The three academic guidance counselors are responsible for

students in specific occupational areas. They recruit and enroll students, help with course selection and planning, and connect them with support services. The two case managers are assigned to ESL or ABE/GED® teachers, respectively. They conduct orientation, help with enrollment, and oversee support services, student follow-up, and retention.

**Support services:** Services include a remediation lab (computer-based instruction plus teacher support) for students with low TABE scores, subsidized on-site childcare, Pell grants, scholarships, financial aid and incentives (e.g., tuition reimbursement for completing requisite hours, fee waivers for high school equivalency exam, free tuition for homeless students and others<sup>36</sup>); supports for veterans, students with disabilities, and homeless students; and social service referrals. Refugees and asylees are eligible for the SAVES (Skills for Academics, Vocational and English Studies) program.<sup>37</sup> CareerSource South Florida, the regional workforce agency, is co-located at LHTC.<sup>38</sup>

**Notable features:**

- Braman Automotive Training Center.
- Exit requirements rather than entry requirements.
- Articulation agreement with Miami Dade College.
- Student population: dual-enrolled high school students, homeless adults, veterans, refugees, people with disabilities.

### *MIAMI DADE COLLEGE – HIALEAH CAMPUS*

**Overview:** Miami Dade College has the highest undergraduate enrollment of any U.S. higher education institution. We studied the new, grant-funded FICAPS (Florida’s Integrated Career and Academic Preparation System) program because it is designed for students without a high school diploma. In 2015-16, FICAPS aimed to enroll 30 students across campuses. Since the grant was new, the description below reflects FICAPS’ design rather than its full-scale implementation.

**Occupational sector(s):** TRAMCON (manufactured construction) and business.

**Student population and entry requirements:** The grant targets students without a high school degree who score 9.0 or higher on the TABE in two subject areas (language, reading, or math). FICAPS students in TRAMCON must be at least 18 years old and authorized to work in the USA.

**Primary goal(s):** Job placement or postsecondary education.

**CP components, sequence, and length:** Students are dual-enrolled in an online GED® class and an occupational class. In 2015-16, FICAPS business students could enroll in a college credit certificate: Accounting, Business Management, Finance-Banking, or

Business Operations Management (12-24 credits, 16 weeks to 1 year). FICAPS students in TRAMCON could complete one to four levels (up to 23 months and 880 hours, depending on the number of credentials earned).

**CP credential, certifications, and other primary outcomes:** Students earn a GED® diploma. TRAMCON students receive industry-recognized, stackable credentials and transferrable credits for the building construction specialist or engineering technology degrees. Business students earn college credits.

**Curriculum:** GED® classes are online and include teacher support. TRAMCON involves three credentialing agencies (e.g., OSHA). Students can take some classes in sequence and others out of sequence, depending on the credential. Classes cover employability skills and include contextualized basic skills. The business curricula vary by certificate.

**Staffing:** Instructional staff are GED® support teachers and occupational teachers. Career readiness advisors (one or two per campus) enroll students, administer career interest inventories, create individual educational plans, provide academic advising, connect students with support services, and assist with job searching. Staff meet monthly for planning and program improvement.

**Support services:** FICAPS students have access to the same services as credit students (e.g., tutoring, disability services, discounted bus passes, food pantry, one-stop center providing legal referrals, financial coaching, tax preparation, benefits screening, etc.). Some supports (e.g., childcare) have eligibility requirements. The FICAPS grant covers books and supplies; students ages 18-24 are eligible for tuition waivers.

**Notable features:**

- Dual-enrollment model (GED® plus career technical classes).
- Continuing education students have access to the same resources as credit students.
- Per state law, career-technical education (CTE) students receive college credits for earning industry credentials.<sup>39</sup>

The case study organizations' programmatic features are summarized in Table 5.

**Table 5: Key Features of Case Study Organizations**

<b>Occupational Sector</b>	Health	Manufacturing <ul style="list-style-type: none"> <li>• Computer numerical control (CNC)</li> <li>• Press brake</li> <li>• Welding</li> </ul>	AutoCAD <ul style="list-style-type: none"> <li>• CNA</li> </ul>	General Office Support Specialist (GOSS)	CNA	Automotive Service Technology (AST) – General or Braman <ul style="list-style-type: none"> <li>• Commercial Foods &amp; Culinary Arts</li> <li>• Nutrition &amp; Dietetic Clerk</li> </ul>	Business <ul style="list-style-type: none"> <li>• Manufactured construction (TRAMCON)</li> <li>• Health (not included in study)</li> </ul>
<b>Primary Goal(s)</b>	Postsecondary education	Job placement, financial stability	Job placement, financial stability	Job placement	Job placement, financial stability	Job placement, postsecondary education	
<b>Primary CP Components</b>	<ul style="list-style-type: none"> <li>• Career Bridge: Health-contextualized math &amp; language arts classes (GED® prep)</li> <li>• Free credit course (2nd semester)</li> </ul>	<ul style="list-style-type: none"> <li>• Bridge class (contextualized math &amp; reading) OR</li> <li>• Manufacturing class (includes digital literacy)</li> </ul>	<ul style="list-style-type: none"> <li>• Contextualized basic skills class AND</li> <li>• CTE class (AutoCAD: concurrent; CNA: sequential)</li> </ul>	<ul style="list-style-type: none"> <li>• Basic skills class (not contextualized) AND</li> <li>• CTE class (GOSS: concurrent; CNA: sequential)</li> </ul>	<ul style="list-style-type: none"> <li>• Orientation &amp; CP exploration</li> <li>• CTE class AND</li> <li>• Practicum (dietetic clerk)</li> <li>• Paid internship (Braman AST)</li> <li>• Internship (General AST)</li> <li>• GED® class (optional); remediation lab (if needed) - not contextualized</li> </ul>	<ul style="list-style-type: none"> <li>• Orientation &amp; CP exploration</li> <li>• Online GED® class (not contextualized) AND</li> <li>• CTE class</li> </ul>	
<b>Enrollment Model</b>	Cohort (semester)	Open enrollment	Cohort	Cohort	Cohort	cohort (semester)	

<b>Program Length</b>	<ul style="list-style-type: none"> <li>• 32 wks. (2 semesters, 512 hrs.)</li> </ul>	<ul style="list-style-type: none"> <li>• Bridge: 12 wks. (192 hrs.)</li> <li>• CNC: 20 wks. (500 hrs.)</li> <li>• Press brake: 10 wks. (250 hrs.)</li> <li>• Welding: 14 wks. (350 hrs.)</li> </ul>	<ul style="list-style-type: none"> <li>• CNA: 8 wks. (180 hrs.)</li> <li>• AutoCAD: 10 wks. (160 hrs.)</li> </ul>	<ul style="list-style-type: none"> <li>• 12 wks. (272-292 hrs.)</li> </ul>	<ul style="list-style-type: none"> <li>• 2 mos. (188-208 hrs.)</li> </ul>	<ul style="list-style-type: none"> <li>• Culinary: 18 mos. (1200 hrs.)</li> <li>• Dietetic Clerk: 4 mos. (300 hrs.)</li> <li>• Braman AST: 13 mos. (1050 hrs.)</li> <li>• Gen'1 AST: 18 mos. (1800 hrs.)</li> </ul>	<ul style="list-style-type: none"> <li>• Business: 16 wks. to 1 year</li> <li>• TRAMCON (4 levels): 23 mos. (880 hrs.) (fewer credentials = shorter)</li> </ul>
<b>Credentials, Certification &amp; Other Outcomes</b>	<ul style="list-style-type: none"> <li>• GED® diploma</li> <li>• Transfer to credit courses</li> </ul>	<ul style="list-style-type: none"> <li>• Industry credentials</li> <li>• Manufacturing jobs</li> </ul>	<ul style="list-style-type: none"> <li>• CNA: eligible for state exam, certificate of completion</li> <li>• AutoCAD professional user certification</li> </ul>	<ul style="list-style-type: none"> <li>• Office skills certifications (e.g., Microsoft Office Specialist Certification, IC3 Digital Literacy Certification)</li> </ul>	<ul style="list-style-type: none"> <li>• Eligible for state CNA exam</li> </ul>	<ul style="list-style-type: none"> <li>• AST: industry credentials</li> <li>• Transferable credits</li> <li>• Certificates</li> <li>• Occupational completion points</li> </ul>	<ul style="list-style-type: none"> <li>• GED® diploma</li> <li>• Business: college credits</li> <li>• TRAMCON: industry credentials, transferrable credits</li> </ul>
<b>Key Instructional &amp; Support Staff</b>	<ul style="list-style-type: none"> <li>• Language arts teacher</li> <li>• Math teacher</li> <li>• Transition specialist</li> </ul>	<ul style="list-style-type: none"> <li>• Bridge teacher</li> <li>• CTE teachers (most program graduates)</li> <li>• Program coordinators</li> <li>• Employment coaches</li> <li>• Job developers</li> <li>• Financial coaches</li> </ul>	<ul style="list-style-type: none"> <li>• Basic skills teacher</li> <li>• CTE teachers</li> <li>• Employment coaches</li> <li>• Financial coaches</li> <li>• Income support coaches</li> </ul>	<ul style="list-style-type: none"> <li>• Basic skills teacher</li> <li>• CTE teacher</li> <li>• Program manager</li> <li>• Workforce director</li> </ul>	<ul style="list-style-type: none"> <li>• Basic skills teacher</li> <li>• CTE teacher</li> <li>• Employment coaches</li> <li>• Financial coaches</li> <li>• Income support coaches</li> </ul>	<ul style="list-style-type: none"> <li>• Basic skills/GED® teachers</li> <li>• CTE teachers</li> <li>• Counselors</li> <li>• Case managers</li> </ul>	<ul style="list-style-type: none"> <li>• GED® teacher (support)</li> <li>• CTE teachers</li> <li>• Career readiness advisors</li> </ul>

The case studies revealed the following variations in key features:

- Primary goals: One program focused only on postsecondary transitions. The others all had job placement as a key goal, along with (in one case) postsecondary transitions. Three programs also focused on financial stability.
- CP components: Programs offered different combinations of basic skills, CTE, and bridge classes and, in some cases, an internship or practicum. If both basic skills and CTE were required, these classes were either sequential or concurrent.
- Enrollment model: All but two programs had a cohort model. The open enrollment programs used peer teaching and module completion, respectively, to ensure student progress.
- Program length: Programs lasted 8 weeks to 23 months and 180 to 1800 hours.
- Credentials, certifications, and other outcomes: Outcomes depended on the type of programs and their goals. The outcomes included HSE diplomas, industry-recognized credentials, certifications, occupational completion points, eligibility for professional exams, and transferrable credits, among others.
- Key instructional and support staff: The staff who interacted with students included basic skills teachers, CTE teachers, and a variety of support staff focusing on case management, job placement and employment coaching, financial coaching, income support coaching, or academic advising.

## CP DESIGN AND IMPLEMENTATION

The qualitative and survey data show that organizations varied widely in how they designed and implemented CP. This section highlights examples from four areas: contextualized instruction, staffing, support services, and access for lower-level students.

### *CONTEXTUALIZED INSTRUCTION*

Contextualization, a hallmark CP strategy, “encompasses varying ways of providing basic academic (sometimes non-academic/life) skills in the context of a vocation, academic discipline, or real-life situation” (Fein, 2012, p. 7). The premise is that “by increasing intrinsic motivation, retention of what is learned, and ability to transfer skills to new applications, contextualization will lead to improved basic skills and content knowledge” (pp. 7-8).

All programs offered some form of contextualized instruction and used differing models of contextualization (see Fein, 2012; Perin, 2011). Most commonly, basic skills or bridge classes used occupational content to teach reading, writing, or math. For instance, the City Colleges of Chicago curriculum developer explained that the contextualized language arts curriculum is “a vehicle for reading and writing and exposure to relevant science and social studies.” The curriculum is in students’ occupational sector, is “intellectually stimulating, and gets them writing the most sophisticated things as they go along.” To date, CCC has developed contextualized language arts curricula for



healthcare, transportation, distribution, and logistics, culinary arts and hospitality, early childhood education, and information technology.

By contrast, basic skills or GED® classes in two case study organizations were not contextualized, other than, in one case, occasional writing assignments related to healthcare. Miami Dade College's online GED® class was not contextualized because FICAPS students were pursuing different occupational paths.

Another model of contextualization was to embed some basic skills instruction in CTE classes. For example, JARC's manufacturing classes covered the types of math problems that students would encounter in the workplace. The computer numerical control (CNC) instructor explained that instead of teaching "normal math," he teaches "shop math," which is "the core math that they'll encounter as they're in manufacturing and it's not the same math that they're used to. In regular math, you're working with improper fractions," which is rare in manufacturing. In the CNC class we observed, he provided a tutorial on measuring the distance between two holes and the knowledge about fraction and decimal equivalents needed for machinists. Similarly, in the welding class a student demonstrated how he calculated the distance from the centers of two equidistant holes to the edge of a 47.5 inch angle iron, which involved multiplying, adding, and subtracting fractions. The teacher explained that she uses word problems like this one to simulate the manufacturing work environment.

With the exception of certain Business credit certificates at Miami Dade College, all the CTE classes at the case study organizations included hands-on instruction and/or a lab, practicum, internship, or clinical rotation to help students develop requisite practical and technical skills. For example, all students in CNA and Automotive Service Technology (AST) classes completed a clinical rotation or internship, respectively. The Braman AST students at Lindsey Hopkins studied and worked on-site at the car dealership's service center, which helped them develop on-the-job skills and led to high job placement rates.

### *STAFFING MODELS, STAFF COORDINATION, AND INSTRUCTOR EXPERTISE*

Case study organizations had three to six types of staff who taught classes or provided coaching, counseling, or other essential supports for students. Notably, the three organizations that sought to improve students' financial stability all required participation in bundled support services, including financial, employment, and/or income support coaching. To provide these services, the organizations hired staff for three or four types of roles (job developers and employment, financial, and income support coaches). These additional staff enabled the organizations to provide a more hands-on, intensive support system with individualized case management (see Support Services, below).

Due to differing student populations and limited staffing, support staff (case managers, counselors, advisors) in some organizations had caseloads of 300 or more students.

Staffing models for basic skills and CTE classes also varied. In four cases, all instructors were full- or part-time employees of the case study organization. By contrast, two CBOs had an in-house basic skills teacher, with CTE classes taught by outside instructors from a community college or proprietary school.

These staffing models were related to differing degrees of interaction between basic skills and CTE teachers. On one end of the continuum were two CP programs where the basic skills teacher and the CTE teacher reportedly had no interaction (in addition, a CBO administrator never received the CTE curriculum). These CP programs seemed to lack a mechanism for staff from the host and partner organizations to discuss curricula, student progress, or other matters. This minimal interaction raises questions about the curricular alignment between basic skills and CTE classes and communication between teachers.

In another CBO with outsourced CTE teachers, funders' requirements reportedly determined program design: one funder required *concurrent* basic skills and CTE classes and the other required *sequential* classes (X weeks of basic skills, then X weeks of CTE). In turn, this schedule shaped teacher interaction. Teachers of concurrent classes could talk informally during the class transition period. For sequential classes, communication was minimal and infrequent (e.g., one face-to-face meeting per cohort, occasional emails). In both cases, coordination and communication between basic skills and CTE teachers were informal and teacher-initiated, not systematized.

The other organizations had regular case staffing and/or program planning meetings. One agency held bi-weekly meetings with instructional and key support staff to discuss each student's progress. Another organization had just started a similar model, and a third held monthly planning and improvement meetings with program managers or coordinators from all campuses (instructional and support staff were not involved).

Finally, some basic skills teachers had expertise in students' occupational areas, whereas others did not. For instance, the City Colleges of Chicago curricula were written so that language arts teachers did not need expertise in healthcare or other sectors. By contrast, JARC's bridge teacher had manufacturing expertise and taught incumbent worker trainings at local manufacturing companies.

## SUPPORT SERVICES

Policy makers, researchers, and funders have increasingly emphasized support services for low-income adults in education programs and community colleges (Bettinger, Boatman, & Long, 2013; Bryant & Duke-Benfield, 2014; Weissman et al., 2009). As such, wraparound supports are a key feature of CP programming (Fein, 2012). Case study

organizations used two models to provide wraparound support services: bundled (mandatory) supports or voluntary.

The Center for Working Families and Financial Opportunity Center models require participation in two or more integrated support services (see Kaul et al., 2011, p. 2), including financial coaching, employment coaching, and/or access to income supports. As noted above, the organizations that aimed to increase adults' financial stability (in addition to placing them in jobs) all used this model. An Alliance staff member offered the following rationale for requiring participation in at least two services: "Research has found out that if students are engaged in more than one service, they stay in the program longer, so we can provide them better services."

The other organizations also offered vital wraparound services. In particular, CP students at community colleges had access to support centers related to veterans, disabilities, academic tutoring, physical and mental health, financial aid, and other needs. However, the non-bundled supports model was voluntary, had eligibility requirements (income, age, etc.), or did not include financial literacy or counseling. These services are summarized in Table 6. See below for discussion of how support services contribute to student success.

**Table 6: Selected Support Services at Case Study Organizations**

<b>Child Care</b>	<ul style="list-style-type: none"> <li>On-site child care (sliding scale) &amp; Head Start*</li> </ul>	Referrals	Referrals	<ul style="list-style-type: none"> <li>Referrals</li> <li>On-site Early Head Start, Head Start*</li> </ul>	Referrals	On-site child care (~\$50 per week)	<ul style="list-style-type: none"> <li>Referrals, including subsidized child care*</li> </ul>
<b>Transportation</b>	<ul style="list-style-type: none"> <li>Public transit or gas card</li> <li>Bike share discount*</li> <li>Free campus shuttle</li> </ul>	<ul style="list-style-type: none"> <li>Public transit or gas card</li> <li>Bike share discount*</li> </ul>	Discouted public transit*	No	No	Discouted public transit	<ul style="list-style-type: none"> <li>Case-by-case basis</li> <li>Discounted public transit</li> </ul>
<b>Access to Financial Support</b>	<ul style="list-style-type: none"> <li>Referrals</li> <li>Case management to apply for public aid</li> </ul>	<ul style="list-style-type: none"> <li>Access to income supports &amp; credit-building products**</li> <li>Emergency fund (women)*</li> </ul>	Access to income supports & credit-building products***	Referrals	Access to income supports & credit-building products***	Referrals	<ul style="list-style-type: none"> <li>Referrals</li> <li>Public benefits screening (via Single Stop)</li> </ul>
<b>Financial Literacy or Coaching</b>	No	Yes**	Yes***	No	Yes***	No	Yes (voluntary, via Single Stop)
<b>Employment Coaching, Job Search or Placement</b>	No (other than Career Planning & Placement Center)	Coaching, job search & placement**	Coaching, job search***	Career readiness, job search workshops	Coaching, job search***	<ul style="list-style-type: none"> <li>Career readiness</li> <li>Job search assistance</li> </ul>	<ul style="list-style-type: none"> <li>Career readiness, some job search &amp; placement (CareerSource)</li> </ul>
<b>Financial Aid for Tuition, Fees, Supplies</b>	<ul style="list-style-type: none"> <li>Free non-credit classes</li> <li>1 or 2 free credit courses</li> </ul>	Free classes & equipment (e.g., boots)	Low registration fee (\$20-\$120)	<ul style="list-style-type: none"> <li>Low registration fee (\$170 for CNA)</li> <li>Free tuition, books, supplies (e.g., uniforms, exam fees)</li> </ul>	<ul style="list-style-type: none"> <li>Scholarships*</li> <li>Test fees*</li> <li>Free tuition*</li> </ul>	<ul style="list-style-type: none"> <li>Pell grants*</li> <li>Scholarships*</li> <li>Test fees*</li> <li>Free tuition*</li> </ul>	<ul style="list-style-type: none"> <li>Free books &amp; supplies</li> <li>Free tuition*</li> </ul>
<b>Disability Services</b>	Yes (disability center)	No	No	No	No	Yes	Yes (disability center)
<b>Other</b>	Wellness Center, services for homeless students	Financial incentives for job placement & retention, etc.	Affordable Care Act navigators; Dress for Success; Career Gear	Dress for Success; Career Gear	Dress for Success; Career Gear	Services for homeless students, veterans, inmates	<ul style="list-style-type: none"> <li>Single Stop (food pantry, free tax prep, legal referrals, etc.)</li> </ul>

\*Only for students who meet eligibility requirements (e.g., income, age, or other demographic characteristics: type of CP class; attendance; test scores).

\*\*Mandatory.

\*\*\*Clients much choose at least two out of three services.

## ACCESS FOR LOWER-LEVEL STUDENTS

Most research on CP has focused on programs for community college students or students with a secondary degree (e.g., Anderson, Hall, & Derrick-Mills, 2013; Anderson, Kuehn, Eyster, Barnow, & Lerman, 2017; Fein, 2016; Fountain et al., 2015). Thus, we wanted to determine whether and how lower-level students (i.e., no secondary degree or low reading, math, or English test scores) access CP programming. Do they have viable entry points to CP programs, or are they limited to general (not employment-related) HSE and ESL classes?

The survey data showed that there are minimum test score, language, or other entry requirements for more than one-half of all CP services or classes. The case studies confirm that overall, lower-level students had less access to CP programs.<sup>40</sup>

Alliance, Houston Community College (Community-Based Job Training Program), and the Braman Automotive program at Lindsey Hopkins all required a high school degree for CP classes. One stated reason for this decision was that many employers in the targeted sectors require a secondary degree. Alliance and HCC also had test score entry requirements; HCC enrolled students with TABE scores of 6.0-11.9.

At HCC's AVANCE site, there were no entry points to CP classes for students who did not meet the requirements. ESL students could take Burlington English Career Pathways (online instruction); other students were referred to HSE classes. HCC's Chinese Community Center site referred out for HSE classes or placed students in ESL classes with no career content. At Alliance, the Burlington English (computer-based) classes were career-focused, but face-to-face ESL classes were not.

Three organizations that admitted students without a high school degree also had a minimum TABE score requirement, ranging from 5.0 to 9.0. These organizations used two main strategies to help students without a secondary degree prepare for CP and/or college transition classes: bridge classes (including studying for the HSE exam) and dual-enrollment. For instance, the City Colleges of Chicago model has three entry points into career-focused college transition classes, starting as low as 4.0 on the TABE. (See below on bridge programs as a factor in student success.)

Organizations offered different reasons for choosing their TABE cut-offs. According to an HCC administrator, they chose 6.0 to 11.9 because of research showing that 80% of HCC students "were not college ready":

Therefore, that led us to deduce that obviously there are a lot of people out there who need help with improving their basic skills because...when they come to us, they don't have it. Their TABE scores averaged around fourth grade for reading, maybe fifth grade for math....This led us to believe that obviously there's a need for this population to have some kind of support with reading, writing, and math so that they'll be able to matriculate through life better and earn not

just minimum wage but life-sustaining wages for them and their families. And so that's kind of how we got to that target population.<sup>41</sup>

Miami Dade College's TRAMCON program chose 9.0 because a partner college in their consortium on the grant found that students in the Florida Trade for Manufacturing grant "needed at least a ninth-grade...reading level to be able to be successful, and mostly because of the manufacturing part of the program. So it was kind of handed down to us." Thus, MDC and the consortium adopted the same cutoff.

Lindsey Hopkins' CTE courses were the sole example of an entry or exit requirement (TABE score or industry certifications), which is a state policy.<sup>42</sup> This model enabled lower-level students to show their academic or practice-based competence upon program completion, rather than preventing them from enrolling. Table 7 summarizes the entry requirements and the availability of HSE classes in the case study organizations.

We do not have data on the percentage of students who progressed from ESL or HSE classes to CP classes, and the case study data suggest that agencies do not necessarily track this information. When asked how often students moved up to CP classes, some staff said this is rare, whereas others (even within the same organization) claimed that it's commonplace. Together, these findings underscore the need to ensure that lower-level students have access to substantive CP programming and to track whether students are progressing from ABE, HSE, and ESL classes to CP classes.

**Table 7: Entry Requirements and HSE Classes at Case Study Organizations**

	City Colleges of Chicago	JARC	Alliance	Houston Community College – CBO sites	Lindsey Hopkins	Miami Dade College – FICAPS
<b>HS/GED® Diploma Required</b>	No	No	Yes	Yes	No (except for Braman AST)	No
<b>Minimum Test Score (TABE)</b>	<ul style="list-style-type: none"> <li>Career Foundations: 4.0 (R)</li> <li><b>Bridge: 6.0 (R), 5.0 (M)</b></li> <li>Gateway: 9.0 (R), 8.0 (M)</li> </ul>	<ul style="list-style-type: none"> <li>Bridge: 5.0</li> <li>CTE: 7.0 or 9.0</li> </ul>	6.0 (R & M); 4.0 (L)	6.0 to 11.9	<ul style="list-style-type: none"> <li>All CTE programs: CASAS 3 or any TABE score</li> <li>To exit: TABE 9.0 (R, L) &amp; 10.0 (M) OR pass industry certifications (AST)</li> </ul>	9.0 on 2 out of 3 (L, R, or M)
<b>HSE classes offered?</b>	Yes (part of CP program)	No	No	Yes (at HCC, separate class)	Yes (optional)	Yes (part of FICAPS)

Note: L = language; M = math; R = reading

## PRACTICES AND POLICIES THAT SHAPE CP PROGRAMMING

This section outlines the most salient practices and policies that influenced how CP programs were designed and implemented.

### *PARTNERSHIPS*

According to focus group and case study participants, partnerships are essential for developing and delivering CP programs. As a Chicago focus group participant stated, “It’s extremely important to have good strong partnerships to make this work.” Key partners included CBOs, local educational institutions such as school districts and community and technical colleges, workforce development partners (e.g., one-stop centers and Workforce Development Boards), government agencies (e.g., mayor’s offices, probation departments), employers, intermediary organizations, homeless shelters, and social service agencies (see survey findings for other partners).

In most cases, partnerships were voluntary, but in others they were required by the funder or built into funded proposals. For example, the Community-Based Job Training Program is designed as a partnership between Houston Community College, which provides the instructors and curriculum, and CBOs, which provide all other components. The grant that funded the TRAMCON program at Miami Dade College was reportedly “designed to force community colleges, industry, and the workforce development boards to work together.” Similarly, another organization wrote grant proposals requiring them to partner with postsecondary institutions, where CP bridge students transferred for postsecondary credits in CNC or nursing.

### *Purposes*

Whether voluntary or required, partnerships between adult education providers and other entities served one or more of the purposes described below.

*Program and curriculum design and development.* Several organizations relied on intermediary organizations, employers, or other partners to inform the initial design or ongoing revision of their CP programs or curricula. City College of Chicago’s (CCC) long-standing partnership with Women Employed is a prime example. Women Employed, an intermediary organization, has been instrumental in developing the Career Foundations and Bridge programs and curricula—including paying for initial curriculum development and making the curricula publicly available<sup>43</sup>—and coordinating the Career Foundations classes (held at community sites). In other cases, employers or other providers helped adult education agencies select an occupational focus and/or informed curriculum development.

Several organizations had an advisory board or committee that shaped CP programming. For example, in Miami-Dade County, all public schools and district-



sponsored adult education programs (including Lindsey Hopkins) have an Educational Excellence School Advisory Council (EESAC) comprised of school staff, students, and business and community representatives, among others. “The EESAC’s function is to bring together all stakeholders and involve them in an authentic role in decisions which affect instruction and the delivery of programs.”<sup>44</sup> Similarly, other organizations had employer advisory boards for specific occupational areas (e.g., manufacturing, information technology, CNA, business).

*Student recruitment.* All agencies relied on partners for recruiting CP students. These partners used informal strategies (e.g., flyers, including the program on a list of CP providers) and/or systematized procedures to send students to the provider. For example, since Lindsey Hopkins is part of Miami-Dade County Public Schools, staff worked with high schools to advertise LH vocational classes and held a bi-annual open house for high school students. LH also partnered with five county correctional facilities, several homeless or drug and alcohol rehabilitation centers, and faith-based class sites that sent their clients to vocational classes, and in most cases LH offered classes at these centers.

*Instruction.* Some CP programs included classes from two providers such as a community college or proprietary school and a CBO. Houston Community College’s Community-Based Job Training Program was the most prominent example of partners offering different instructional components. Similarly, the Harris County Department of Education provided the GED® class and educational supports while other entities (e.g., community college, Literacy Volunteers of America, Goodwill) offered the vocational classes (e.g., instrument technician, CNA, women in pipefitting). These partnerships were essential because “in terms of providing services that, at least until now, we haven’t been able to provide. So we haven’t been able to use our money for vocational training. So we’d have to go out there and find folks who can, with their funds.” Lindsey Hopkins’ provision of CP classes at “outreach campuses” such as homeless shelters is another example of this partnership purpose.

Partnering with other CBOs, colleges, or training agencies offset the need for adult education agencies to hire personnel with content area expertise or to become proficient in the occupational or skills training. Instead, they could focus on literacy, numeracy, and language instruction.

*Provision of support services for CP students.* In addition to referring students off-site for support services, some organizations also had partners that provided supports as a routine part of the CP program. These partnerships enabled them to offer more support services for students. For example, AVANCE deemed Dress for Success and Career Gear (national programs) to be partner agencies; Houston Community College relied on partner CBOs to provide support services; JARC partnered with North Side Federal Credit Union so clients could open “twin accounts”; and the Coalition of Florida



Farmworker Organizations provided students at South Dade Technical College with “information about Social Security benefits, food stamps, etc.”

*Referrals for off-site classes and support services.* If an agency did not provide a needed class or support service, they referred students to other providers. A Chicago focus group participant explained:

For instance, if someone comes to us and they’re applying for training, and their English is ESL [level] and their grade-level gains are not where they should be, I could send them to [a local CBO], and then you all work with that person and then send them back to [us] for the [vocational] training after they’ve accomplished those gains. So once again, I think that’s very critical for how we all survive in this maze.

In other cases, students took classes at the case study organization, but were referred to partner agencies for support services such as finding childcare.

Due to FICAPS grant requirements, Miami Dade College had to rely on partners to provide funding for wraparound services. A staff member explained that the grant was designed so community colleges, industry, and Workforce Development Boards would work together. As a result,

we are not allowed as a community college to spend any money on... licensing fees, testing, or registration or any sort of other kind of wraparound – gas cards or stipends or anything like that. They’re expecting that the student is able to go to the Workforce Investment Board and they’ll be able to get the funding for those additional things...from the Workforce Investment Board and then they come and we provide the instruction for free.

*In-kind donations.* Three organizations mentioned receiving in-kind donations such as supplies and equipment from employers or food from grocery stores. For instance, an employer dropped off 8,000 pounds of steel for JARC’s welding program: “They were just gonna scrap it. And he was like, ‘You know, that’s worth a hundred bucks to me in scrap.’ It’s borderline priceless for us. That would cost us a thousand dollars-plus to get that material.”

*Career exploration and job placement.* Employers were mentioned as partners who assisted with career exploration and/or job placement. For example, a Heartland Alliance representative noted that the Chicago hotels that hire their graduates (all refugees) provide student tours of their hotels, give presentations about their HR policies “the keys for success” in working at their hotels, host student graduations, and “do mock interviews.” Other activities in this category included offering internship opportunities, providing industry representatives as guest speakers for CP classes, and informing adult education agencies about position openings (particularly CareerSource South Florida in Miami).

JARC had particularly strong relationships with employers who hired many of their manufacturing graduates and also contracted JARC staff to provide incumbent worker training. These close relationships enabled JARC to pre-screen applicants for employers and tailor job placement to the student's and employer's needs.

*CP trainings, professional development, and technical assistance.* Partners provided valuable training, professional development, or technical assistance. Examples included training on developing bridge programs and contextualized instruction, assistance with designing the program to accommodate parents' childcare needs, and providing information about citywide gaps in CP programming, among others.

*Transition to postsecondary or further training.* CBO- or agency-based adult education providers helped students transition to further education or training through partnerships with technical and community colleges. For instance, an organization in Miami partnered with technical colleges to help students, particularly former inmates, access training. This organization, along with the Miami-Dade County Public School's adult education programs, also had articulation agreements allowing CP students to earn and transfer credits to postsecondary institutions. (Florida also has several statewide CTE articulation agreements, which involve more than one-to-one partnerships.<sup>45</sup>)

## Challenges

Partnerships were productive and vital to CP programming, yet they also brought challenges.

*Establishing new partnerships.* The most frequently mentioned difficulty was finding new partners and establishing a relationship, especially with employers. The following comments from a focus group are illustrative:

So the employer side is hard, you know, to create those relationships where you know that you're going to find employment at the end of the tunnel. And even though we are told that these jobs...are out there, it still could be hard to find them. It's a missing piece. (Provider A)

I think the employers don't know what we're doing. And if they...do know what we're doing, they're not trusting us to do it well. And so we need to gain that trust. (Provider B)

Although I've been looking for organizations to do internships with my CAD [computer-aided design] students since we started, and I haven't found anybody who's willing to do that for the CAD students. (Provider C)

*Maintaining partnerships.* Partnerships also take work to maintain, and may weaken over time. In a focus group, two staff members described the fragmentation of the partnership between their organizations:

Provider A: [Organization A] and [Organization B] have had a partnership [in] career pathways officially, in the past, and unofficially. But I think one of the things we talked about...and maybe you're seeing this in the other cities—the fragmentation, a little bit....Because unfortunately, we cooperate some, but probably not as much as we could.

Provider B: We had an idea of what was going to happen, the partnership that was going to happen....And then partnerships dwindled and we've all like broken out into our own entities.

Although the reasons for this “dwindling” are too complex and sensitive to describe here, these comments underscore how partnerships can unravel.

*Difficult relationships with workforce development.* Similarly, some providers reported that workforce development entities such as Workforce Development Boards or American Job Centers (formerly one-stop centers) rarely referred students, even though they were supposed to do so. For instance, a website listed all the Job Centers in one city that were funded by the Workforce Innovation and Opportunity Act (WIOA), but not the “smaller affiliate agencies” such as CBOs that offer CP classes. This situation contributed to competition among providers: “So it becomes disheartening sometimes, because then you want to become competitive with those other affiliates or other WIOA agencies when we really shouldn't be.”

In another case, a funder required cooperation between education providers, industry, and workforce groups, but the cooperation did not occur as anticipated. A staff person explained that they “don't have a very great relationship with our local workforce board.” Specifically, getting the board to approve the CP program as an official WIOA provider was “an uphill battle.” In addition, “they don't really advertise us, they don't really talk about our program, so it's been frustrating on that front.” The education providers suggested that funders should use both “carrots” and “sticks” to ensure that workforce boards work with education agencies as intended.

Since the time of the interview, the provider reported that this relationship has improved. Since WIOA legislation now requires closer alignment between adult education and workforce providers, it is imperative that these entities find ways to cooperate.

*Time- and resource-intensive.* Three providers noted that partnerships are time- and resource-intensive:

We have to go find basically partnerships all over the city with organizations that are providing those services and develop those relationships and cultivate those relationships, and that takes a lot of time. It takes a lot of effort. It takes a lot of, basically, resources, and institutional resources to be able to get that done....But it's also proven to be a strength in the sense that we have to go out there and find those connections. And we, as a result, we have some great partnerships that have made some of the programs we're working on successful.

Collaborations don't necessarily cost less. They take more time and more energy and more people; however, they have greater impact.

At this point, in our case, we get lots of grants, but the problem is that they specify [that] lots of services are leveraged, meaning we have to go to the technical schools and say, "Can you do this for us?"

*Partner had difficulty accommodating needs.* In addition, a partner may not accommodate the adult education agency's needs. For instance, an adult education provider related that a community college didn't have space to take the agency's CP students. Another provider noted that their CP classes with the community college involved last-minute schedule changes and waiting for instructors to be assigned.<sup>46</sup> In a third case, the agency had not been able to convince their employer partners to provide scholarships for trainees.

*Competition for students.* Competition for students was another challenge that arose when partner agencies weren't allowed to count the same student toward enrollment and other performance measures. Coupled with lack of information about other CP programs across the city, this situation placed agencies in competition:

I think sometimes funders pit us against each other, in terms of performance measures. We...tend to want to wrap ourselves around, "These are our customers, these are our places and our employers." It wasn't until a couple years back where the partnership said, you can have shared placements. Prior to that, yeah, there was a lot of war going on where people were very hesitant to fill a slot outside of their customer pool.

The funder's later decision to allow agencies to share students alleviated this problem.

*Personalities.* One person noted that "personalities" sometimes "got in the way" of partnerships through staff behaviors such as "stonewalling and not answering the phone and not calling back."

*Different student populations.* Another provider observed that partners may not understand the agency's students:

It's hard to work with colleges who are used to working with people coming out of [high] school or maybe a few years out of school...It's just a very different culture. And so working on that relationship a little bit. Understanding better about what it's going to take for our clients to be successful in a GED® program.

## *MEASUREMENT AND DATA COLLECTION*

Measurement of student outcomes was central to CP design and implementation. Staff (focus group participants) in each city described measurement as a challenge.

(Previous sections discussed how meeting performance measures can contribute to competition for students and a focus on higher-level, documented students.)

Enrollment, program completion, and educational functioning level (EFL) gains were common measures, but these were viewed as incomplete or inadequate indicators of program success. For instance, a provider explained that students who are not post-tested because "they get a job before we get a chance to assist them" were not counted in a program's "numbers"—even though job placement is the end goal.

Measures that reflect persistence and retention in programs and transitions in career pathways were deemed better indicators of successful programs. However, since most funders do not require information about those outcomes and agencies' data collection is driven largely by funders, those outcomes were not typically measured. For example, quarterly "report cards" from a funder (local workforce board) only included enrollment data and EFL gains, not "employment or transition data." Similarly, other providers lacked the capacity to measure how students were progressing along the pathway, as illustrated by this comment: "it would be good if we'd be able to track some along the entire pathway, not just...my piece of the pathway."

Providers in each city identified a need for longer-term follow-up data on what happens to students after leaving their programs. For example, do they obtain their GED® diploma, enroll in community colleges, secure employment, or participate in more vocational training? What is the length of time between the bridge (or CP) program and employment? And do they obtain employment in their targeted occupational area?

These types of data are hard to collect because students in CP move across institutions, usually with different funding sources and data systems. For instance, a correctional education provider said, "Once they leave the system, they've practically disappeared. I have no way of reaching them once they end their sentence." Another person noted that since there is way to track students across institutions, "a data system that would incorporate more than one funding stream would be amazing."

Providers in another focus group raised concerns about the reliability of student self-report data they were required to submit. These data included employment status, job placement, job retention, and in some cases, wages:

It's completely unreliable in the sense that certainly many of the folks that claim to be working are not eligible to be working. So whether or not you count that as part of your data becomes an issue.

Data collection capacity varied widely across providers. Miami providers can collect data on students' short-term goals through MyCareerShines, and both the school district and college have institutional research departments with the capacity to track adult learners across providers in their networks. In Chicago, City Colleges has an extensive data management system that includes every Career Foundations, Bridge, and Gateway student from the last 16 years, including whether or not they transition to credit classes, among other outcomes.

## *POLICIES*

Governmental and private funders' policies were described as both aiding and complicating CP implementation. Note that not all the policies described below applied to every city or organization.

### *Investments in CP*

In each state, dedicated resources for CP have helped providers establish programs. For example, the Joyce Foundation's Shifting Gears initiative was cited as instrumental in developing a CP system in Chicago, Illinois, and the Midwest. According to providers, this investment and "interest" in CP spurred the development of bridge programs and attracted funders. Shifting Gears was also responsible for the incorporation of bridge programs into state policy and funding requirements. Consequently, Illinois was the only state to have a statewide definition, guidance, and policy on bridge programming, which is a key strategy for increasing lower-level students' access to CP (Strawn, 2011).

In Florida, CP development was advanced by a two-year state grant, but dedicated funding was not continued. More recently, targeted grants such as the Florida Integrated Career and Academic Preparation Program (FICAPS) and TRAMCON have helped adult education agencies develop CP classes in the college setting, albeit on a limited scale at the time of our study. Similarly, the Texas Innovative Adult Career Education (ACE) grant enables nonprofits to develop programs for low-income students to enter high-demand, higher-wage careers.

### *Local policies*

Miami providers were the only ones to discuss how local (county or city) policies have influenced CP programming. For instance, county correctional facility inmates can receive time off their sentence (up to five days per month) for attending adult education or vocational programs. Second, a provider related that the school district's

five-year plan (Vision 2020) aims to “bridge the high school kids that are not successful in the high school program into...adult ed.”

Finally, providers discussed how Employ Miami-Dade has helped CP programming. Through this initiative, adult education providers have partnered with CareerSource South Florida to offer vocational training targeting seven industries convened by the business-oriented One Community One Goal initiative. Noting that local-level policies are “where you see the positives take place in the work,” a provider explained that Employ Miami-Dade is local.

That’s [local level] where the true need can be known and fixed, whereas you get the hindrances, we’ll call them, from time to time, at the state or federal level, because that’s such a big picture and not realizing that this [particular policy] causes a problem down here [locally].

### *State policies*

Providers cited specific state policies that prompted and enabled them to develop CP programs, while also creating new challenges.

*Florida.* Florida mandates career exploration in adult education classes<sup>47</sup> and makes available the use of MyCareerShines, a free online or paper-based skills inventory and career pathways exploration tool that is completed by adult learners.<sup>48</sup> This assessment provides information on how to support students’ entry into an appropriate sector pathway and informed career advising. For instance, the assessment helped a Career Readiness Advisor at Miami Dade College to “identify a student’s skills, to guide them, in the specific career or areas that they want to...study.” Although not mentioned in the focus group, state policy also helps homeless adult students, who are eligible for fee-exempt CTE programs.

On the other hand, some participants critiqued a state policy that “penalizes high schools for withdrawing students to the adult education programs,” even though they are “the entity best equipped to provide these services to students in need.” These students included high school students who “can’t read...can’t write, [are] struggling, can’t pass the tests, can’t pass the end-of-course exams.” Withdrawing these students from high school and formally transferring them to school district adult education programs can hurt the school’s adequate yearly progress for outcomes such as enrollment. This policy, providers asserted, deters high schools from transferring students to adult education programs where they could complete their secondary degree and attend CP classes. Instead, they claimed that many of these students drop out.

*Illinois.* Starting in 2010-11, the Illinois Community College Board (ICCB), the governing board for state-funded adult education programs, “required programs to either have or to be connected with and to be feeders to career pathways and bridge



programs.” This change prompted adult education programs—even “tiny programs”—to develop CP classes. A beneficial result was reserved funding for career pathways:

The change in stance by the Illinois Community College Board in about 2011 has no doubt placed a lot of emphasis on career pathways and reserved funding and gave it a more favorable and less numbers-oriented, less seat time- and attendance hours-oriented...funding, where the amount per student went way up over their average. So they, in essence, reserved lots of funding at that point for the adult programs in order to have to serve bridge students.

ICCB also developed a detailed definition of bridge programs and has made some bridge curricula publicly available.

An unintended consequence of the emphasis on bridge programs, however, was duplication of services:

Provider A: [Every ICCB-funded adult education provider having a bridge program] wasn't in the formal regulation, but it was a stated regulation which basically compelled programs that even necessarily weren't thinking about explicitly including career pathways to come up with a career program. But it's also led to some confusion around...duplication and, you know, trying to decide who should be doing what. Because then every program said, “Well, we need to figure out what our bridge program is.”

Provider B: Yeah, right, because you're not supposed to duplicate, but everyone has to have a bridge.

Another result was that agencies had to develop expertise in specific occupational sectors:

Because it [ICCB bridge requirement] has to be sector-specific, it's now requiring a lot of agencies to somehow become like an expert in a certain sector, when maybe they've never done that. Or I feel like there's not a whole ton of support for like how you decide what sector, and how do you do a bridge program if you have those lower-level students? What does that bridge look like?

A provider elaborated on ICCB's emphasis on developing bridge classes:

So sometimes it's a good thing. Sometimes it's a little detrimental if they're scrambling to do all of the logistics...plus write the curricula [which have to be approved by ICCB]. So that is a factor of career pathways in Chicago. It's neither a good nor bad thing. It's good that there's the push for bridges, but sometimes I think it's a little incohesive.

*Texas.* Because state adult education funding is now channeled through the Texas Workforce Commission (a recent change), ABE programs have shifted to focus on



offering CP classes. One provider related that because adult education programs are now “under one entity” and no longer “reporting separately,” “there seems to be a little bit more support” and less competition among providers.

Providers identified two inter-related challenges of the change in funding and governance. First, programs’ target enrollments for CP classes increased rapidly on short notice (one program reportedly learned two months into the fiscal year that its CP target had tripled). Consequently, it was difficult to meet these targets *and* to provide high-quality career pathways:

One of the policies that weakens us is when you’re given a certain amount of money and then you...have to meet a target...in order for you to continue with that funding. And you cannot provide career pathways, because they require more time. It’s more expensive. So you have to choose what you’re going to do: whether you give the career pathways or meet your target, and so that’s a challenge that you face.

Second, providers described the state definition of CP as “restrictive”: it had to be a recognized career pathway certificate in a “high-demand occupation.” Although providers recognized the need to place students in higher-wage, in-demand jobs, they were concerned about lower-level students’ ability to obtain these jobs:

Now sometimes we would like a little bit more flexibility because there don’t seem to be a lot of options for folks that are very low skilled and that need a step into the workforce, that may not be directly one of those in-demand occupations. So basically, there are a lot of jobs in retail. There are a lot of jobs in lower [wages]. CNA for example, there’s demand for those jobs. But these are not jobs that are supported by the local workforce system, simply because, well, they don’t pay enough to meet their standards. And as a result sometimes these efforts [are]...not supported by the local workforce system.

The state policy meant, for example, that a vocational ESL program focused on customer service or healthcare did not count as a career pathway because it wouldn’t lead to “job growth” (higher wages). However, from the provider’s perspective,

basically we were happy if our ESL students had the courage to go apply for a job at the Walmart, which they had never even dreamed...of doing on their own...From the local workforce standpoint, getting a job at Walmart, it’s not something that is particularly worthy of note, in terms of their income requirements. But it’s a huge deal for an ESL learner, who [before] basically could only get a job where everybody spoke Spanish.

In sum, some ESL students obtained jobs, yet did not meet the criteria for job growth. Other providers at the focus group also supported the view that for many ESL students, job growth involves incremental steps and entails more than increased wages.

## *Federal policies*

**WIOA.** WIOA (adopted in 2014) was cited as the key federal policy that has shaped CP programming; it compels programs to develop CP classes but adult education providers also expressed concern about its emphasis on employment and programs' ability to serve lower-level students. A potential benefit is that WIOA legislation requires closer alignment between adult education and workforce systems:

I think the intent of the new WIOA law is to make adult education and workforce programming more integrative. (Chicago)

The new WIOA implementation and...Career Source centers [in South Florida] now hav[ing] to work with adult education programs and whatnot, is policy that helps because it kind of, we'll say, nudges toward that direction, collaboration between those entities. (Miami)

However, providers were concerned that employment and postsecondary transitions had eclipsed other goals such as educational gains and discouraged programs from serving students with the greatest needs, including students with less education and undocumented students. Traditionally, adult education

focus[ed] on individuals who are the least educated. And our efforts were to really get them to have a chance to be integrated to the marketplace, or to be successful as parents, or in the community as a whole. The focus now is clearly on integrating people into jobs as quickly as possible. (Houston)

Current WIOA legislation is going to favor students at that top [who are] ready to be more postsecondary and it is going to disfavor undocumented students who will legally not get a job...because they don't have Social Security [numbers]. (Chicago)

If performance funding is based on securing employment and based on the Social Security data match, then a program that's serving students with a Social Security data match and serving students that are likely to be employed—which will be the higher-level students—will ultimately become stronger, whereas the programs that are serving undocumented students and lower-level students will ultimately become weaker. (Chicago)

This policy shift was viewed as a "direct hit" on undocumented learners because they would not count toward employment goals, creating a "very clear disincentive" to enroll these students.

**EL Civics.** Of particular concern were changes to the English Literacy and Civics Education (EL Civics) grant, which can also affect state policies. Historically, this grant

was used to serve the least-educated ESL learners and the ones that...wanted to become citizens, as well. That funding has now been completely refocused towards career pathways. At least that seems to be the situation here in [state], so that we're going to have to do workforce eligibility for those individuals. And the state's basically asking us to focus on higher-level ESL students and individuals who have higher-level skills, either college degrees, like your engineers...or nurses, and hopefully give them the English that they need to be quickly integrated into the workforce. The focus is not going to be on the typical EL Civics student, who was basically somebody who had very little English and who had very little education in their own country...Traditionally, at least in my program, we don't see too many of those highly educated folks that have a lot of skills and that just need a little English to bump into the workforce. We might find the odd engineer or the odd nurse, in our classes, but on average I'd say maybe one out of 30...We don't have a concentration of those folks. So I see a big gap between what the demand for our classes is and what the expectation of the state is in terms of ESL integration into the workforce.

In brief, some providers perceived a "discrepancy between the stated goal of serving the hardest-to-serve and students with the highest needs" versus "the way the funding formulas work," which privileged higher-level students.<sup>49</sup>

### *Funding challenges*

Salient funding-related policy challenges included funders' timelines and expectations, fiscal crises, and the complications of combining funding streams.

*Unrealistic timelines and expectations.* Some providers were concerned about what they perceived as funders' and policy makers' unrealistic timelines and expectations for student advancement. For instance, a provider noted that a "roadblock" to inmates' re-entry is that they have only 21 days to get a job after arriving at the re-entry center,

which leaves very little time for them to get any real skill-based training....[T]hey have to pay the re-entry center 25% of whatever money they're making [*the provider has since corrected this figure; it can be up to 75%*], so they literally have to start making money as soon as they get there. So they may have no skills. I mean, they've gone from high school to prison, spent 20 years, 15 years in prison. They literally have no skills, don't recognize the value of a résumé. How am I going to get them into technical school? Or reintegrate them with any other human beings? They cannot even work in a team environment, you know. So that's a challenge that we have. And yes, we do all the pull-outs and the employment skills training; we do all of these different types of interventions, assessments, to make it as holistic as possible. We have mentoring, we have the case management, everything that surrounds the student, but their time frame is

so small, so very small. Because they are sometimes leaving prison knowing they have to work, so they start working right away.

We subsequently learned that this policy stems from direct contracts, which primarily focus on employment, more than training or education.

Other providers discussed what they viewed as “unrealistic” timelines for lower-level students to obtain a job:

Provider A: So for someone to go from, like, a fifth-grade level to a job is probably going to take a little longer than somebody at a twelfth-grade level going to a job. But if all of your metrics have to start and end within one calendar fiscal year— It’s not to say this person is not moving great along the pathway. It’s just you might not be able to reflect that, so—

Provider B: Some funders don’t like that it doesn’t happen all within 12 months.

A third provider added that there is “cognitive dissonance” between the long-term, “longitudinal aspect of what [career pathway] transitions implies” versus the short-term, “fiscal year aspect of [funders’] contracts.” As such, “realistic expectations” are needed for students who enter at, for example, a “first-grade reading level”:

Provider C: They might not get placed in a job that is going to pay them 16 or 17 dollars an hour. They might get placed in a job that pays them 9 dollars an hour....And funders are increasingly looking for unrealistic like wages for students who are coming in with no literacy skills whatsoever. For them to say, “Oh great, they’re going to be making \$50,000 a year within six months”—that’s a completely unrealistic expectation. So I think there’s this dissonance between the goals that the field is setting for itself and the funders are setting, and the lives of students and what we [programs] can track, what we can show.

Provider B: And I think with those tight timeframes, too, it kind of ... it does disincentivize an agency to serve those ... to serve those people, because you know you’re not going to reach all those outcomes, so it’s almost like is that person counting against you. So it’s like ... I feel like by focusing on those shorter timelines the funders are pressuring people like ... you can only serve people at this higher level, because then you know they’re going to hit their outcomes in that shorter time span, you know?

*Fiscal crisis.* Due to Illinois’ budget stalemate, adult education programs during the study (2015-17) did not receive state grants or federal pass-through grants for approximately two years. Although state and federal adult education funding has always been sparse, the situation became even more acute. Providers estimated that

five to ten programs in Chicago had closed, and “everyone has had reductions, interruptions. So the coordination became very difficult because...for 5½ months there were zero WIOA dollars that came in....But there will be, no doubt, reductions in services.” In this “challenging funding environment,” providers strove to diversify their funding sources so they could continue offering services.

*Combining funding streams.* Diversified funding enhanced sustainability, but also created complications in some programs. Having varied funding sources, including WIOA Title I, II, III, and IV, state grants, and private funding, “can make it challenging to make a cross-referral for a student, because the eligibility requirements for each of those funding streams is different.” In addition, agencies that dual-enroll students may not be able to claim credit for their enrollment: “If you have that person enrolled and then we serve them, then we can’t also count the person, because they’re already enrolled. Sometimes the funding can prohibit that or make it more difficult.”

In some cases, a related challenge was that funders covered certain instructional levels, leaving gaps as programs sought to help students advance from lower levels to bridge classes. For instance, one grant covered ESL classes through Level 4; the provider had to use a different grant for Level 5 so students could transfer to a bridge class.

### *Responding to policy*

Across the cities, providers described how they responded to policy and funding challenges by using creative, strategic thinking and problem solving:

I think we all have to be really creative in terms of planning for the future, if certain funding was to be dried up. For example, the adult IT funds, the partnership training funds, that we really have to find. Or start at least planning strategically for new ways to be able to service our customers, given the state of things that we’re currently facing.

Otherwise, responses to policy varied across providers. Participants mentioned strategies as working with diverse funders to provide all program components, working to offer students a variety of experiences to meet requirements (e.g., internships), changing the adult learner focus to include postsecondary education as a goal, and establishing a career pathways focus at the earliest point of entry into a program.

### *Policies to support CP programming*

Focus group participants suggested several policies that would aid CP programming in their organizations and region. Here, we focus on two main ideas.

*Data collection and sharing.* Case study agencies and states had varying capacities to collect data, especially longitudinal data after students complete the program. For example, Miami-Dade County Public Schools and the community

colleges in each city had extensive data tracking and reporting systems, along with staff responsible for data. However, providers also wanted to track CP participants “along the entire pathway, not just my piece of the pathway”—that is, across funding streams and institutions—and to follow their progress after program completion, upon entering community college or employment. For instance, a provider stated, “I would like to know if completing these training programs eventually improves their financial circumstances....I would like to know what happens to them two years down the road, one year down the road.” Miami providers also mentioned the need to track students’ transition to college via CTE articulation agreements and high school dropouts’ transition into school district adult education programs, tracking program leavers, and tracking students beyond their first year post-exit. Most of the aforementioned suggestions require sharing data across educational and employment systems.

Some providers also wanted funders to measure a wider array of outcomes than course completion, instructional hours, and grade-level gains – for example, employment placement and retention or other transitions.

Government and private funders can provide funding, technical assistance, and infrastructure to support data collection that is (a) longitudinal,<sup>50</sup> (b) crosses funding streams and institutions, and (c) includes a wider range of educational and employment outcomes.

*Infrastructure for coordination.* To implement successful CP programs—and to pursue the data collection described above—organizations need to work together in a more coordinated, systematic way. For instance, a provider stated that “local, grassroots coordination is needed” to avoid duplicating services. Providers expressed a need for some entity to coordinate regional meetings, help them share data and information, and form new partnerships, especially with Workforce Development Boards and employers. One suggestion was for the Workforce Development Board to organize meetings by occupational sector (construction, health care, etc.) so that education agencies could share information about their CP programs.<sup>51</sup> The policy implication is that funders and government (adult education and workforce) agencies can play a crucial coordinating role by bringing providers together and providing a platform for communication and planning.

## CITYWIDE CP COORDINATION

### MECHANISMS

One aim of this study was to understand whether and how adult education organizations coordinate across systems to plan and implement CP in their city or region. Coordination at the macro (city or regional) level is crucial because it helps to avoid a haphazard approach, wherein each organization develops CP programming without considering how it fits with other agencies’ offerings or local needs.

Coordination can help avoid service gaps and duplication, while also helping agencies communicate and develop a strategic, cohesive, systematic, citywide plan.

Focus group participants identified six primary mechanisms for coordination in their cities. (These mechanisms also align with the opportunities for coordination identified by survey respondents.) We categorized these as micro-level, meso-level, and macro-level mechanisms:

- **Micro level:** coordination between a few organizations
- **Meso level:** coordination across a subset of organizations in a city (e.g., literacy coalition) or within a large system such as multi-campus community college
- **Macro level:** citywide or regional coordination involving many organizations with different funding sources

The macro level corresponds to what CLASP (2013c) calls a “local/regional career pathway system.” We found that most coordination took place at the micro and meso levels. Instances of macro-level coordination were less common.

### *Micro level*

*Partnerships.* The most common coordination mechanism was partnerships between agencies. (See above for additional discussion of partnerships.) Every agency in this study had partnerships that enabled them to provide instruction and support services, make referrals, and help students transition to postsecondary education or employment. Partnerships also included articulation or affiliation agreements between two entities. In terms of coordination, though, these kinds of partnerships only involve a few organizations (e.g., CBO and social service agency; a pilot grant linking a community college, employers, and a Workforce Development Board). Thus, partnerships do not constitute citywide, large-scale coordination.

*Informal coordination between employees.* In addition to formal, institutionalized partnerships, agencies also coordinated through personal relationships between staff. This type of informal coordination depends on communication between two or more employees and their continued employment at their agencies:

Sometimes...you do have a good relationship, but it might be with one individual at that agency, or like me and this person have a relationship....But if either of us leave our agency, sometimes that connection goes with it. And not that other people aren't invested but it's just— There's not like this frame or database or any infrastructure to where it's like, you refer to somebody, but then if they even change roles, then it's just harder to even keep that coordination going. [Researcher: Okay, so in your view the mechanisms are those personal relationships?] Yeah, and I think that's what makes it like shaky or just not very sustainable.



Coordination between staff at different agencies is important. However, given the high turnover in adult education, this form of coordination is not systemic or sustainable.

### *Meso level*

*Coordination among grantees.* In each city, some funders required or facilitated coordination among grantees. For instance, foundations in Chicago and the Houston Community College Consortium convened regular meetings with grantees, which enabled them to discuss and compare their CP work. A Chicago provider explained that funders bring grantees together for meetings,

whether it's CDBG [Community Development Block Grant], whether it's the [Illinois] Community College Board with the Area Planning Council. And we'll meet...under the umbrella of the funder...They're in contact with each other as many as six or seven times a year and at least quarterly informal meetings for coordination purposes.

*Networks and coalitions.* Chicago and Houston had networks or coalitions—a sub-set of providers with diverse funding sources and a similar programmatic focus, such as four literacy coalitions in Chicago, a network of six community colleges in the greater Houston area, and a coalition of about 75 non-profit adult education and literacy providers in Houston (managed by our IES city partner, Houston Center for Literacy). A provider described the Houston consortium as follows:

I'm part of an adult education consortium with six other colleges in the [Houston] area, and we meet on a regular basis, at least quarterly, and we're able to kind of discuss our own issues. But that's only a subset of all the folks that are providing literacy services, particularly through nonprofit organizations.

*Coordination within a large system.* Meso-level coordination occurred within large, multi-site systems such as a community college or school district. For instance, City Colleges of Chicago recently reorganized their CP offerings so that each campus focuses on a different occupational sector like health, IT, or manufacturing. In addition, CP program implementation requires coordination across departments such as adult/continuing education and the “credit side” or offices such as student aid, advising, or academic support. For example, a provider stated that they have “internal and external partners. Because even within the college, you need to have your network in terms of connecting with the...academic and career readiness advisors.”

Women Employed played an important coordination role for City Colleges' Career Foundations program by holding monthly meetings at the 12 CBO sites:

We have an individual liaisons attached, so we have...four [people]...who serve in that liaison role. So on a monthly basis they're checking in, monitoring progress, visiting classrooms. So yes, we are very much managing that structure.



Similarly, adult education CP staff from Miami-Dade County Public Schools' more than two dozen adult education programs met monthly to discuss and plan their work and share best practices. Although these internal coordination mechanisms involved multiple campuses representing thousands of CP students, they did not involve providers outside of the college or school district system.

## Macro level

Overall, citywide CP planning and coordination for adult education providers are nascent. Our IES city partners described some city or regional mechanisms for CP planning and coordination. However, these mechanisms were either not mentioned in focus groups and case studies or were mentioned only in passing. Area Planning Councils (APCs, mentioned by six survey respondents) are managed by The Illinois Community College Board (ICCB). An adult education partner explained that APCs are the "state structure for overseeing adult ed in Chicago and other areas of the state" and include all state-funded adult education providers. According to ICCB,

the Area Planning Council shall provide for the development and coordination of adult education programs in an Area Planning Council Region. The Plan has broad purposes including: identifying services currently being offered to the identified population, producing a plan for continuing services, identifying gaps in services, identifying reasons for these gaps and as a planning tool to identify ways to service the identified service gap. (para. 1)<sup>52</sup>

One Community One Goal (mentioned by one survey respondent) is an initiative of the Beacon Council, Miami-Dade County's official economic development partnership.<sup>53</sup> This initiative focuses on providing a vision, recommending strategies, identifying target occupational sectors, and facilitating coordination among representatives of industry, K-12 schools, and colleges. Adult education providers' involvement is currently limited to the design of new or expanded programs.

Both of these examples illustrate macro-level coordination. However, none of the providers discussed how these macro-level efforts influenced CP coordination in their respective cities. Further research is needed to determine program-level staff's awareness of and inclusion in city, regional, or state-level CP coordination initiatives, since these often involve senior administrators (e.g., community college administrators, principals, executive directors) rather than teachers and program coordinators.

## CURRENT STATE OF COORDINATION

During focus groups, providers in each city commented on the varying degrees of fragmentation and limited citywide CP coordination. They noted the lack of systematic, city-level mechanisms for communicating and sharing information, networking, and cohesive planning related to CP and adult education.

## Chicago

All of the aforementioned CP coordination mechanisms were identified by focus group participants. In particular, Chicago has extensive funder networks, coordination within the City Colleges, a robust system of literacy coalitions (although not focused specifically on CP), and influential intermediary organizations such as Women Employed. Providers appreciated having a “platform” to meet, and expressed a need for more organizations to play this coordinating role:

I think Chicago Jobs Council is a good platform for all of us, especially in workforce development and upgrading adult workers' ...skills. But I think that a shortage of [similar] agencies or having those regular meetings causes us to duplicate some of our programs and then causes participants to think, 'Oh well, it's the same program, so I will take my time because it's right around the corner.' ....We don't have more of these similar agencies, such as CJC or funders who are graceful enough to bring us all together to have a platform to talk.

Provider also noted that inter-agency partnerships are often more personal than institutional. In addition, there is no comprehensive directory listing all the city's bridge programs (nor does this exist in Houston or Miami).

## Houston

Houston has literacy consortia and funder networks. However, focus group participants did not identify any formal, citywide mechanisms for CP coordination, which they attributed to the newness of CP and its informal, rapid development. As one person stated, “I think most of us are just sort of getting started with systematic efforts to develop” CP programs. In addition, Houston's large geographical area (nearly 670 square miles) hinders cross-system coordination.

These points are illustrated by the following exchange:

Provider A: Do I think there's a place where everybody has a place at the table and is able to coordinate and discuss workforce pathways issues? It's not there, right? It's not there.

Provider B: That's because it's so new.

Provider C: Yeah, it's so new.

Provider A: Well, that too.

Provider B: It's just happening very fast.

Provider D: But it's so natural in other areas as well. That's very typical of social services in Houston. It's a very entrepreneurial city. We're a huge

geographic area, so we're geographically diverse. It's very easy to go solo here and survive. Not necessarily have great impact or good programming, good outcomes, but you don't have to play with others to succeed.

## Miami

Miami focus group participants described internal coordination among the school district adult education programs and within Miami Dade College, as well as articulation agreements between an adult education provider and postsecondary institutions. Case study participants also detailed partnerships, coordination, and affiliating agreements between two or more entities (e.g., school district and correctional system, CBOs, homeless shelters; college and industry).

Several focus group participants also mentioned a partnership between Miami Dade College and the school district, the city's main adult education providers. However, this partnership no longer is active.<sup>54</sup> Few CBOs provide CP programs that do not use school district instructors; as such, the most critical unmet need for coordination is between the school district and Miami Dade College. The aforementioned provider expressed a desire for more cooperation and connection between the two systems:

Maybe you're seeing this in the other cities, the fragmentation, a little bit. Because unfortunately, we [two systems] cooperate some, but probably not as much as we could. Same thing right on with all the other organizations, I think we could do a better job.... We [school district and college] serve some of the same needs and same populations, but don't necessarily work together as much....I think for too long we've stood on opposite sides of that riverbank. And there's a few threads that connect, but we need to be more connected, the whole thing.

Coordination was complicated by Miami's large geographic area and diverse ethnic groups, which require different types of CP services to serve different populations:

For example, you have us, the three of us [providers], we represent the three different areas of the county. We have the north, and the south, and the center of the county, the heart of the city....We follow the same career pathways model—we've been doing this now for five years—but our services, our agencies that participate, depend on the demographics. For example, like the [omitted] Campus for Miami Dade, I work with the farm workers...transition the students into the school, track them, etc.

## CHALLENGES TO COORDINATION AND COLLABORATION

Focus group participants across the cities mentioned the following challenges in relation to CP coordination and collaboration (in addition to those already mentioned above such as the newness of CP, lack of intermediary organizations, etc.).

### Competition

Providers viewed competition for funding and participants (stemming in part from pressure to meet enrollment targets) as an impediment to referrals and collaboration among agencies.

We're under such pressure to meet these numbers, that it can seem like people don't want to refer [their students to another agency]. (Houston)

The following discussion among Houston providers elaborates on this phenomenon:

Provider A: It seems like everybody is holding on to their [students].

Provider B: They don't want to share.

Provider A: Yeah. And I think that that needs to somehow change. And maybe it is because we're duplicating services, which I don't think we are, but—

Provider B: You know, we are all under the same umbrella now anyway, so whether they take classes with me or with [another provider], it counts for all of us.

Another Houston provide explained:

I think historically for the last 10 years or 15 years in adult ed, there seemed to be like a big competition among the providers [for] meeting the target, getting the students, and all this. And I'm hoping that that changes, to be honest with you, that there's less competition, per se. (Houston)

The participant went on to say that having adult education programs in Texas report to one entity has helped reduce competition.

Miami participants also described competition among providers:

Provider A: I was in the community college environment...for like 15 years, and then I've segued over into vocational ed. And the tie-breaker almost is that we view each other as competitors, and we're not. The Miami-Dade population is so huge and so diverse that if you were to look at each group of students and their needs, you're going to see that

we're never going to step on each other's toes. And truth be told, you reach out to people and you try to partner with people, but no one's getting back to you because "That's my student population, I'm the one servicing that student," and that's a part of the equation that we need to address. You know, it's not technical schools, then FIU [Florida International University], and blah, blah, blah. There is no tier that makes one better than the other.

Provider B: There's enough for everyone.

Provider C: There are enough students with so much need to go around, and they need the customer service at all levels. And that's where I've seen the ball drop. You know, I've seen that. I literally have seen that, because I worked at [a college] before the advisors were there. So you see where the gaps are, and where the students fall off the grid. And that's something that needs some research.

## Gaps in services

Gaps in services existed because CP is in its "infancy" (Houston), because of varied population needs across large geographic areas (Miami), or because it is difficult to transition students from high school to school district adult education programs (Miami).

We're still in the infancy stages of the development, so considering the need out there, there's still kind of a mismatch between what we're doing and the overall need of the community. So I don't think we're there yet in terms of duplicating efforts. We need more efforts. (Houston)

Maybe that's one of the gaps that you see, or that came out of the [survey] results, because again, we are a large district, and it depends on...the pockets of where you are [located] is the services that you will receive. (Miami)

As a technical college or an adult center [we are seeing] that the students are not bridged from high school to the adult [education] center. So there is a gap, where—we have to be real, not everybody is meant to go to college. And we have to give them an avenue of where to go....One of the goals [in the superintendent's 5-year plan] is to try to bridge the high school kids that are not successful in the high school program, into the adult ed. And then as adult ed centers or technical colleges, we also want to bridge into Miami-Dade [College]. (Miami)

## FACTORS THAT CONTRIBUTED TO SUCCESS

This section distills the most salient factors that, according to focus group and case study data, help account for student and programmatic success. Although there is no

single way to design a successful CP program, the data show some common features that can be adapted to other organizations and geographic settings. The sections below describe common factors that cut across two or more case study agencies and practices that fostered success at a single organization.

## *ALL SITES*

### *Caring, dedicated staff*

Adult educators are renowned for their caring demeanor and dedication to their work, despite long hours, low pay, and limited resources. The teachers and staff in this study are no exception. On the whole, students were effusive about the helpfulness of their teachers and staff in explaining instructional content and providing assistance. An exchange between two students in Houston was typical:

Student A: Teachers – wonderful teachers, wonderful teachers. I so appreciate this.

Student B: And everyone here that works here at [organization], they seem to be genuine and sincere. Yeah, that no matter who you ask help for, they're real genuine, and for me, I think will go out of their way to help you....The staff here is great.

Students in Chicago described how their math teacher made the material fun and accessible:

Student A: He make math like it's fun, and he'll give you a chance to answer and if you just blurt out because you don't know...he'll go back [and say], "Okay, this is how you get this [answer]." And it makes it like a little easier. What was we working on today? Interest rates. And he made it look like, damn, that's not hard at all.

Student B: With Mr. \_\_\_\_, I just love how he actually take the time out with you and how he make math fun to learn. Because he don't just stick to professional, professional. He'll laugh, and he'll play little different games. He do stories with it, because we all got to pass.

This student also appreciated the daily "life quote" the teacher wrote on the board:

Every morning he give us a quote to think about, and it is just amazing how his quote hit home, you know. Oh, wow, you put that up there especially for me. You know, like if you go to a church and it seem like the preacher be talking directly at you. That's how his quotes be. And that is so *awesome*, it motivates.

Two students at a Miami site described the staff's dedication to their work and their ability to build students' confidence:

They see things in me that I don't see....They give me self-confidence....They're pushing us for the better. They're not only doing their jobs....No. They're leading you towards your goal. They're trying to make us a better person. And, like, when you come, they asking you what's your next thing? And you're working towards it....They're helping us. It's not about the money or the job; they have love for what they do.

The people that they have teaching here, it's like they really care about your future, about yourself. You start one person, and by the time you're like a month here, you feel different about yourself. You feel confident.

These examples illustrate how teachers can convey to students that they matter.

Support staff, such as an advisor in Miami, were also vital for helping students succeed:

She helps out a lot. You know, you have any questions, she's more than happy to help. She explains to you, like, "Listen, finish this and I can help you to do this. There's this, this, and other things." Whatever you want to follow...she'll find a way to explain it to you, so that you know what it is you have to do, what you have to take, and she'll help you get there.

Another student described this advisor as a "second mom." She helped the student find a job and secure funding and study for the GED® Tests. For example, the student dropped by to ask the advisor for help with studying for the Social Studies test:

It was like 4 in the afternoon, and she stayed in her office until like 6:30, 7—for like two hours and a half—helping me....She stopped doing what she was doing and started helping me. And then another student came in, and she started helping the other student, too. So she's very like, helpful, and she's really into the students. She doesn't like to just leave them....I remember when I first started taking my GED® [class] I wasn't like really into it....After that, when I first got into it, she started calling every day. "Oh, I need you here tomorrow, I need you here tomorrow, I need you here tomorrow. To do this, to do that."...People up there think I'm like her personal helper...because I'm always in her office. Even now that I'm already a college student, I go to her office every single day...before I go to class.

The advisor was also helping the student get a car so he could see his family. These comments show the importance of support staff for helping students access resources and motivating them to stay in the program.

### *Strong partnerships*

Strong, well-established partnerships were essential for CP programs' success. (See above for a discussion of partnership purposes and challenges.) These partnerships

enabled agencies to provide all the requisite CP components and supports and to assist students with transitions to postsecondary education or employment. In particular, employer partnerships were crucial for agencies that focused on job placement. For example, a Chicago refugee resettlement agency cited their “strong relationships with employers” and employers’ involvement in training as a “key to success.” Similarly, a Chicago employer explained what sets JARC apart from other adult education agencies:

I think one of our best partnerships is with JARC because they understand our culture and they understand the kind of person that will thrive in our environment....I think it [JARC’s success at preparing trainees for employment] goes into the pre-screening that they offer. And I think in terms of the relationships that they build not only with employers but with the community, I think...they’re very good at...identifying an individual that will be successful in each role. And I think to their point, they want success on both sides. They want the graduate to succeed, and they also want a success story for the employer.

These comments illustrate the mutual gains that occur when adult education providers and employers seek to meet each other’s needs for high-quality jobs and well-prepared employees, respectively.

Another partnership that stood out was City Colleges of Chicago’s collaboration with Women Employed, an intermediary organization that helped shape CP in Chicago, particularly through their bridge curriculum development and coordination of CCC’s Career Foundations community sites. City College staff commented:

Women Employed I think has been a really huge help with the bridge program in terms of...identifying gaps, figuring out what kinds of skills students are going to need to get jobs. They focus a lot on how to get people life-sustaining wages.

Getting people out of variable-hour jobs is one of their big missions. And so pushing people from retail into family-sustaining wages.

This partnership illustrates how working with intermediary organizations can advance CP within organization, cities, and states.

### *Wraparound support services*

As noted above, each agency provided a range of non-academic support services to address students’ financial and social barriers to education and employment, including transportation, childcare, housing, health, and financial instability, among others (see Table 6 for details). These support services were essential for helping students access and complete CP programs.



*The need for support services.* The following comments from CP staff illustrate the material conditions that drive adult learners' need for support services.

There was a single parent [in the CNA class and] the women's shelter would allow women only. [They told her,] "You have to find somewhere else for your child." She had to find a distant, distant relative for the preadolescent son while she went through the program at shelters. And it boils down to basic need. I'll be honest, some of them are hungry. Don't have food to eat. It will tug at your heart. And this is not made-up stuff. This is real. Some of them are embarrassed about it. (Houston)

I had a student that was homeless [and living in a car]. And so then, yes, I did call the Rescue Mission. I was glad we had that relationship....They were full at the time...but [they told me,] 'Here's what you do.' And those personal connections that we can, you know, get people to the front of the line and say, "I got an urgent issue here that needs to be addressed." (Miami)

I think there's definitely consensus among us that we're seeing people with a lot more barriers to employment. Much, much bigger gaps in employment history, much less stable personal lives, much less work experience, and so that's where the soft skills and support services really are kind of the make or break. They can get the job. That's not really a problem. We can teach them how to use the machines to get the job. You know, perfect example: we had a guy, phenomenal, did great in the press brake program. Things were looking pretty good. He got a great job working over the weekends at a manufacturing place. And the car that he had access to, the person needed it back. And he couldn't get to that job without it. And he had kind of no other real backup. So it was basically he had to take a job next door. He couldn't follow through with it. So there's a lot of that part too. Or even something as basic as if you've got a lot of court dates....That's kind of what we try and make them do, get all that stuff done while you're in the program. We're willing to tolerate you not showing up as long as you're dealing with these things that are chronic....We're asking them about all those things. Do you have a record? Can you get things expunged? Do you have court dates coming up, do you have medical issues you need to deal with? And helping them to get a handle on all of those so they can hopefully get those things out of the way because those are all things that an employer, despite their best intentions, is going to have a really hard time putting up with. (Chicago)

Not all CP students face such dire conditions, but poverty is a reality for many.

*Implementation of support services.* Although the support service model and variety and intensity of services varied (see Table 6, above), most agencies offered

some form of case management to meet students' comprehensive needs. This approach was articulated by a Chicago provider:

We have a philosophy of trying to meet the student where the student is at. Which means that, you know, if the student needs the citizenship, or if the student needs the job, or if the student needs the drug counseling, or if the student needs the domestic violence referrals and case managers— So that we feel if the student leaves, there's something that we didn't do.

An example from Miami illustrates what case management looks like in practice:

I had student [who] was going to go homeless last year around this time. She was having trouble with her mom, she didn't have a job, her mom kicked her out of her house. And then no one was trying to help her in the family. She came to me. She was crying that she didn't know what to do. I called 411...and I get the different agencies in Miami-Dade County, see if I can help that student get a place to live. We called different agencies. I went also to Single One Stop to see if they had any agencies that could help me...since they deal with foster care students, to assist me with that student. Thankfully, her grandmother, at the end, opened her house for her, but in the meantime— I'm also a part of the AFC [Association of Florida Colleges] on campus, and I spoke to one of the directors...and we got that student clothes...so she had business attire to go to job interviews....And instead of giving her money, what we did, we collected clothes from some of the staff at the school, and we gave it to her....And we all worked together to help her out and eventually, we helped her write her resume and she got a job at Panera Bread, where she's working there now.

Housing, clothing, job searching, interviewing, resume preparation: these are just a few of the issues that staff members help students resolve.

Miami-Dade County Public Schools' SAVES (Skills for Academics, Vocational and English Studies) program and Miami Dade College's similar program are an example of comprehensive supports for refugees and asylees age 16 and older (serving over 12,000 per year). (SAVES was mentioned briefly in the focus group.) Some of these students enroll in vocational programs like those at Lindsey Hopkins or MDC. Benefits include books and supplies; free tuition for ESL, citizenship, ABE, and high school equivalency classes; free tuition for up to three trimesters of vocational classes; assistance with employment placement (if unemployed); and, for eligible students, bus passes, childcare, and translation and validation of university degrees.

The bundled supports model at JARC, Alliance, and Chinese Community Center was noteworthy because these services were required (thus ensuring access for all students) and comprehensive, including financial counseling and education and income support screening. The financial and income supports were consistent with these agencies' goal

of increasing students' long-term financial stability. As such, participants in these organizations received much more intensive services and received a wider array of financial supports, including credit building products (e.g., secured loans and credit cards), small business loans, credit reviews, one-on-one financial counseling, and more.

*Why wraparound supports work.* We posit that wraparound supports work because they expand participants' "mental bandwidth" (Mullainathan & Eldar, 2013; Schilbach, Schofield, & Mullainathan, 2016). Mental bandwidth is finite, and for people in poverty, thinking about and managing monetary problems imposes a massive cognitive load (Schilbach et al., 2016). In field and laboratory studies, the cognitive impact of thinking about financial concerns was the equivalent of losing a night of sleep (Mani, Mullainathan, Shafir, & Zhao, 2013). When CP programs help students apply for food stamps, pay for transportation, or reduce medical debt, they increase students' bandwidth for focusing on academics.

Our data support this interpretation.<sup>55</sup> For instance, a dislocated worker stated that because JARC's support services,

we don't have to stress about all those actual life problems. All we have to do is concentrate on our school work...It takes a big burden and a big load off the mind when you don't have to worry about that, and you just concentrate on the school work, which is very helpful.

In other words, support services reduce the cognitive load of "life problems" and allow students to devote more mental energy to education.

Another student had a similar perspective:

They don't give you no excuse for not being here. You're going to get here because you get either a bus card or a gas card...I mean, you don't got no excuse for how you don't want to be here, because they going to help you with something. I just signed up for [health] insurance the other day. I've never had insurance. I didn't even sign up for insurance. I sat there and gave the guy my information. And then before I knew it, I was, oh, wow, now I got insurance!

A third student needed to get her son's eyes checked and had been "waiting for weeks" for the insurance company to send a list of in-network doctors. She marveled that a JARC employee gave her this information in a matter of minutes.

JARC's Center for Working Families director explained that they provide bundled support services "in order for people to be able to focus on the end goal, which is to remain in training":

Through the relationships they build with support staff, students end up coming to us with whatever their challenges are because they know that we'll try to figure

something out for them. And that is a thing that kind of keeps them coming back. Because they can see that it's starting to make sense and they want to kind of stay on the training at that point because they know there are supports in place and there's no judgment.

In sum, bundled support services help students cope with the tangible, non-academic problems that undermine success in education and employment. They also allow students to *focus on their goal* and *enhance relationships with staff*, thereby increasing program completion. Notably, financial counseling and help with accessing income supports are available to participants for their lifetime, even after exiting the program, which likely contributes to better employment and education outcomes.

### *Financial aid and incentives*

Every agency offered some combination of free or low-cost classes, financial aid, or financial incentives, all of which helped students enroll and persist in classes.

Two of the three CNA students at the Chinese Community Center cited the low cost (\$170) as a key reason for enrolling in the program:

I think the program overall was helpful, because a lot of the programs out there for CNA is a little bit longer and way more expensive. And some of them may not even be legit. I know a lot of people that got into programs and they weren't good programs. And they paid a lot of money, you know, got scammed out of money, didn't get a certification. It was just a waste of time. And this one it was, you know, very cheap for, you know, something that could help you get so far. It was short. It wasn't that long at all, and it was worth it.

Similarly, refugees at Alliance mentioned how much less expensive their classes are compared to community colleges.

Tuition for Miami-Dade County Public Schools' CTE classes was higher than for other agencies (fees are set by the state),<sup>56</sup> but financial aid was available (see Table 6).

City Colleges of Chicago's program includes one free credit course for Bridge students and two for Gateway students. The staff believe these scholarships increase students' transfer rates to credit certificate and degree programs. From 2012-17, 78% of Bridge students (n=1,427) and 95% of Gateway students (n=2,528) transitioned to credit classes.

At other agencies, financial incentives included monetary vouchers for students to take the GED® Tests and a small (~\$50) cash bonus for job placement, retention, other employment milestones.

Miami-Dade County's Department of Corrections offered a different kind of incentive: inmates' sentences were reduced (up to 5 days a month) for attending and completing vocational courses while incarcerated.

## TWO OR MORE SITES

### *Transition mechanisms*

All the case study organizations had mechanisms for helping students take next step on their career path, whether work or education. The organizations that focused on job placement offered some type of employment or job coaching. At some organizations, however, these services transcended generic strategies such as posting job listings or writing boilerplate recommendation letters. As one staff member commented,

I feel very strongly that sending resumes is incredibly ineffective. That's what really sets us apart. I know it's a highly intensive process. But when you send 10 resumes to employers and hope one sticks, you're not adding a lot of value really. But if you can tell the employer why you feel this person is a good fit for your company, then that's a totally different conversation.

Instead of "sending resumes," a few agencies provided individualized job placement and coaching, based on close relationships with specific employers. For example, 75% of Lindsey Hopkins' Braman automotive service training graduates were hired at Braman, and the rest were hired by other employers.

JARC offers customized job placement services based on each trainee's "interests" and "skill levels," which contributes to high placement rates. Job developers are responsible for "talking to companies...[to] figure out what company environment is going to be a good fit for each participant." This involves "having a more detailed conversation about our trainees," especially those who "don't look good on paper." This example shows why trust-based relationships with employers and personalized advocacy for students are essential for job placement:

One of the guys at our welding trainings had something crazy—like seven felonies or something. And a good chunk of them were violent. And he was not obviously getting a lot of love [at the prospective company]. And one of our welding instructors...ended up sitting down with the president of the company saying, "Look, take this guy, he's good." And then he hired him, gave him a chance. And now he's there welding, they love him, they're sending him to robotic welding training. He's just a rock star there. But, you know, had it not been for that relationship where they trusted us because we've done a lot of training for them and he believed him....That's why job developers really play a key role, is they're trying to make that right placement, logistics, culture, technical skill, so that person is like, "Wow, I love them. They're a great fit for my company. Who else do you have?" That's the ideal model. It's never that clean but it works sometimes.

The curriculum was also tailored to each participant, depending on his/her job placement prospects:

As trainees get towards the end of the training program, before they're actually job-ready, sometimes we'll kind of have a job in mind for them. And then because we'll know more about what that employer is looking for, we'll make sure that they're learning. A lot of it is measurement equipment that they might not be familiar with. Maybe a specific lathe project. Or sort of more things that are related directly to that job. So we'll kind of customize the curriculum a little bit for them towards the end.

The employment support also included helping program graduates retain their jobs. For instance, a trainee lost his car and called in sick for two weekends:

And so the first thing I asked him was, "What did you tell the employer?" He said, "I just told him I couldn't show up." I was like, "Call him right now, tell him what your situation is. Tell him you're trying to get your car back, you're working on it. Tell him you're working with us." And he did. And the employer was like, "Thanks for telling me. The job's open." That was really good— Like, "I would've fired you. If you didn't show up again, I would've fired you. So now that I know this, I'll work with you. That job's there. Keep me updated and let me know when you can come back to work." ...It's that kind of work that really goes from placement to retention to careers.

JARC staff aimed to increase job retention by providing employment support after students graduated.

Several organizations also enabled students to earn college credits as part of a non-credit program, with the goal of helping them transition to credit-based degree programs. For example, through Lindsey Hopkins' articulation agreement with Miami Dade College, students earn three credits for every automotive service excellence certification (up to 24 credits). Similarly, as part of a statewide articulation agreement, Miami Dade College's TRAMCON students who complete industry certifications can earn approximately 15 credits toward a building construction specialist associate degree or an engineering technology degree.<sup>57</sup> Finally, the 1-2 free credit classes for Bridge and Gateway students at City Colleges of Chicago lead many students to take additional credit courses.

Miami-Dade County Public Schools also had a well-established system for transitioning students from smaller CBO sites to larger school district adult education centers and across centers. In addition, they and MDC used electronic career portfolios to guide students and monitor their progress, guided by a state law that mandates individualized career planning in all Florida CP programs.

## *Instructors with industry experience*

At every organization except City Colleges of Chicago, vocational instructors had experience working in the sector related to their class, such as nursing, hospitality, nutrition, automotive services, or manufacturing. For instance, a Lindsey Hopkins teacher had over 20 years' experience in the automotive industry.

Staff at several agencies noted that having "industry insiders" as teachers contributed to the program's success. For example, a Chicago provider explained in the focus group that one reason they help refugees "succeed in obtaining employment" is "having a teacher who really speaks the language of the employer"—someone who "was in the hospitality industry for 17 years before she became an instructor." A JARC staff member added:

That's a great idea, because, yeah, all of our technical instructors have worked in the field. And I feel like it's nice for a lot that soft skill stuff that you're integrating, because they can say, "This would have never flown at this company that I worked at." Or to be able to bring that in, that it's not just like, "Oh, I read this in a book." It's like, "No, I know from experience and this is what you need to do." And I feel like the students give them more credibility.

The JARC manufacturing teachers not only have industry experience, but most are also program graduates. As such, they are able to relate to and motivate current students.

## *Bridge classes and multiple entry points for lower-level students*

JARC and City Colleges both offered bridge classes. Miami Dade College's FICAPS program could also be viewed as a type of bridge class, since it enables students to dual-enroll in a high school equivalency class and a vocational class. Bridge classes provide access to CP for students who lack a high school degree or who have low reading or math scores; they also offer a clear progression from basic skills classes to either higher-level vocational classes or college credit classes.

The data from JARC indicate that contextualized bridge instruction can help students be better equipped for manufacturing classes. Teachers and staff observed that taking the bridge class increases students' motivation and their math ability, compared to students with higher placement scores who enroll directly in manufacturing classes:

You can do well on the TABE test and not really know math and reading that well, particularly math....One of the biggest differences [is] that people who go through our bridge program really come out knowing math on a much more competent level. So we've had to go back and actually do remediation of people who test in [to manufacturing classes] through the TABE and then we'll actually give them more practical math tests beyond just a really basic [test]—a little bit more the math you're going to actually see on the job....I suppose it's



like being able to pass kind of a basic skills test in school but then when you show up on the job, those two may not really tie out at all.

I've come to see with some of my bridge students, because they've been here a little bit longer, they have a little bit more motivation and a little bit more drive than someone who fast-tracked in [the manufacturing classes] without actually going to bridge.

These comments suggest that bridge classes can help students acquire and practice the practical math skills that they will need in more advanced vocational classes.

Bridge classes are one way to provide “multiple entry points” (CLASP, 2014) so that students with varying educational and skill levels can access CP instruction. In addition, the City Colleges of Chicago model offered two other entry points for students to advance from adult basic education to credit courses: Career Foundations and Gateway classes. All of the courses have career-related content, and the entry requirements, sequence, and potential career pathways are clearly laid out. Also, student transitions to credit courses and credit degree completion are tracked.

This model is in contrast to organizations where (a) entry-level (ABE, GED®, or ESL) courses for students who score below the cut-off have little or no career or vocational content; (b) entry-level courses are not linked to higher-level CTE classes; and/or (c) advancement from entry-level classes to CTE classes is not tracked.

Lindsey Hopkins', Houston Community College's, and City College of Chicago's provision of CP classes and instructors in community-based sites (e.g., jails, homeless shelters, rehabilitation agencies, CBOs) can be viewed as a strategy for helping high-need adults access CP programming. In the case of Miami Dade County public schools, the co-location of an adult education or vocational instructor within a residential agency setting (jail, shelter, rehabilitation agency) allows the school to link exiting students to further educational opportunities at the campus, with continuity of testing, tracking, and academic placement.

### *College setting and student identity*

Data from the two community colleges—particularly Miami Dade College (MDC)—reveals that CP programs can foster a college student identity by holding classes on campus and giving non-credit CP students access to the same resources as college students. In the following exchange, MDC staff discussed the importance of the college student ID card for continuing education (CP) students:

Person A: They like being on campus...If you're a continuing education student, you get a student ID, you get a parking decal. You have all the same benefits that the...for-credit students do. So we try not to



show any kind of difference or preferential treatment for students that are for-credit or not-for-credit. They're so excited. A lot of them tell you, "I never thought I'd be going to college, and now I'm on a college campus and I have my student ID." And they can go to the gym, you know. It's a big deal for them.

Person B: Use the library, the computer lab.

In separate interviews, two other teachers noted that the college ID and location enhanced students' sense of accomplishment and program completion:

This is a college campus, so sometimes they have food and they have this and they have movies, and they can go with their ID and they can use whatever they want to use in the library. It's not restricted to just somebody who...is enrolled in the college side of it. And that gives them a sense of accomplishment, just getting a Miami Dade ID. Because it's not stamped "GED® student." It just says "[name], Miami Dade, Hialeah student."

Here, in college, no one knows if they are GED® program or not. So, I tell them, "Okay, you are here in college. Everyone see you as a college student." So, because the program is here in the campus, [it] is a plus. Because they feel, "Okay, I'm a college student." They start behaving like a college student. They feel like they're integrated into the system. So, they are part of the system. So, for that reason, I think that that is a plus. Before, I used to teach a similar class...off campus. And I see the difference, when students take classes on campus and when students take classes off campus. It's [a] big difference in the attitude of the student.

Comments by two young men in MDC's GED® class echoed the teachers' statements:

Student A: You wake up in the morning. You go on about your day regularly. You come over here and, you know, you have an atmosphere that's a campus atmosphere. It helps, you know—

Student B: You feel like you're in college.

Student A: Right, it's like you're in college, you know, and that helps. And mentally you're—

Student B: It made my mom feel happy to hear that. I go like, "Mom, I'm finally in college." She's like, "You're getting your GED®. You're not really in college." I'm like, "Ma, I'm in college."

Student A: Yeah, you know, you have your student ID. Finally a college student. You go to class regularly, you have your books. You have the other students with you. You walk around, go downstairs to the cafeteria.

You see other people, you know. You feel like you're doing something with your life.

Similarly, when asked whether students envisioned attending college before enrolling in Malcolm X's bridge class, a woman responded:

With me, I've never [seen] myself in college....I stopped going to school in tenth grade....So once I stopped going to school, it was never my intention to ever come back to school. I could never see myself just like sitting in front of a classroom and, you know, sitting in that fashion when I could be making money....I never wanted to come back to school.

However, seeing her daughter's success in college made her re-evaluate her own potential:

School is such her main focus. Like nobody can stop her. She's going to school...and I'm trying to figure out: where did she get this from? She's so motivated....And for me to be able to teach my baby that, you know, don't ever stop and don't never give in 'cause I don't want her in the position I'm in....You know, why can't I do it? If I can teach this to her then, what's stopping me?...So she tell me, "Why don't you go practice what you preach?" ....Like I said, I never really imagined myself in school, but now that I'm in this Bridge program, it's like come get your GED®, go try to get a better job....So it's like, now I see myself, I'm like, "I could do this. I could sit in this class for four hours."....So I could see myself actually taking college courses now, since I started this program. I really can. So it really did motivate me to do it.

Many adult educators believe that a school-like setting deters adults and out-of-school youth who have not succeeded in formal education. But our study suggests that a college campus setting can help CP students see themselves in a new light: as someone who has the ability and potential to attend college.

## *ONE SITE*

This section summarizes distinctive practices that promoted success at individual case study agencies. Each of these practices could be adapted to other CP programs, depending on their goals, design, curricular focus, and other components.

### *Program integration*

In 2016, Alliance for Multicultural Community Services integrated three departments—the Financial Opportunity Center, the Employment Department, and the Adult Education Department—that had previously worked separately. A staff member attested that this recent change was already showing promising results:

I would say good program integration is making the difference....It's pretty new, but we have seen an increase in the outcomes since then....We have more

people enrolled in the bundled services, so...after they finish the training programs they're getting help with employment. They have a coach and...if they are Alliance clients, they have a job developer to help them get placed. Anybody's clients can enroll in FOC, so then they have the [employment] coach, and they've got the financial coach to help them do the budget, pull their credit score. We also offer credit builder loans and different types of financial literacy workshops. So we have seen a bit of an increase in the employment and in the wages and the credit scores.

This example suggests that when done well, integrating units within an organization can help improve student outcomes.

### *Approach to curriculum development*

In contrast to other case study organizations, the City Colleges of Chicago develop contextualized language arts curricula that can be taught by Bridge instructors who do not need content-area expertise. A curriculum specialist writes the curricula for Bridge classes at all campuses. To date, the curricula include healthcare; transportation, distribution, and logistics; culinary arts and hospitality; early childhood education; and information technology.<sup>58</sup> As of this writing, the manufacturing Bridge curriculum is being developed. The industry is used as a context or "vehicle" for teaching language arts (as well as science and social studies) and exploring career development topics.

Each language arts curriculum is divided into four parts of eight weeks each (two semesters total). The first part includes creating a college plan, understanding how the pathway in the chosen sector (e.g., healthcare) is structured, and career options (e.g., stackable credentials, available jobs, salaries, opportunities for advancement). The goal is for students to articulate their interest in the career area, their skills, and the degree they want to pursue. The second part includes two four-week units on occupational topics recommended by specialists, such as nutrition, healthcare reform, and drug resistance. During the second semester, students continue to receive contextualized instruction on industry topics, but also have dedicated time for intensive high school equivalency preparation in science, social studies, and language arts.

This model works for CCC because the curriculum is already contextualized, it includes a detailed teacher's guide, and professional development is offered to support and guide Bridge instructors' use of the curriculum. In addition, the goal is not job placement, but rather college transition: to help students improve their basic skills and obtain a high school equivalency degree so they can transition to credit classes and then earn a certificate or degree in their selected field.

### *Exit rather than entry requirements*

Lindsey Hopkins was the only agency to use exit rather than entry requirements for a CP class. To graduate from the programs we studied, students had to score 9.0 on reading and language and 10.0 on math (TABE) or pass industry certifications (for the Automotive Service Technology program).<sup>59</sup> This approach allowed lower-level students to enroll in the program, while also enabling them to master the required content. Using exit requirements is a promising way to increase access to CP for students who struggle with basic skills. Florida's technical assistance paper (see endnote 42) on assessment and exit requirements can assist other states and cities who wish to adopt this model.

### *Simulated work environment*

JARC was the only organization to use a simulated work environment, which staff considered a key to success. The simulated "shop environment" entails clocking in and out, adhering to strict attendance and tardiness policies, and assigning students roles such as shift lead (manager).

We run the program like it's a shop environment. So the instructor is sort of the shop supervisor and they're assigning people to tasks, they're assigning people to a work team, they're given projects, that kind of thing. (administrator)

I've communicated with the trainees [that] this is job simulation. And so really what we're trying to do is we're trying to simulate the job experience. So they get used to being able to know what the proper etiquette is while they're here. That's why we set it up where they actually have to clock in and clock out. (instructor)

JARC teachers are the equivalent of a workplace supervisor or foreman, program coordinators are like human resources staff, and selected students are designated as shift leads. These students have a higher level of authority and responsibility and act "as another set of eyes for the instructor, somebody that the students know they can go to with questions." The shift leads are chosen strategically based on their interpersonal skills, dependability, or potential for leadership growth:

The way I pick my trainees, I don't go by skills, I go by people person. He or she has to respect their peers and they also have to gain respect from their peers. So I choose character over ability. (instructor)

You show me that you can be on time, you're respectable, that you can talk to people and you're able to get along with people [and] I can make you a shift lead as early as five weeks in a 20-week program. Like just as long as I know I can have faith in you that when I leave the room, you'll make sure that everything still progresses the way I want it to, because your shift lead always reports back to you. (instructor)

Who the instructors choose to be that shift manager is very strategic. Is it somebody who is really strong with their people skills and is very knowledgeable in the field or are they purposely choosing somebody who doesn't speak up very much and we're trying to pull them out of their shell and trying to teach them those leadership abilities? (program coordinator)

Students are told who is serving as the shift lead and can include this leadership position in their resume.

Regarding the simulated work environment, a student commented,

There's a guaranteed routine. The routine is just like on jobs...you know, punch in, punch out. And I like that. I like the structure. It's more like you're on the job site rather than being in a classroom. I like that aspect of it, too.

### *Peer teaching*

JARC, the only organization with an exclusively open enrollment model, used a peer teaching instructional model. A student described peer teaching in this way:

They pair you up with someone that's been in the program longer, and then you train the newer one. You show them what you know, but the instructors are there as well. You can ask them. And basically that's any student there. They'll help you out.

An instructor explained how he implements peer teaching:

I will personally train the entire class...Once we get a new student, I'll pair them up with maybe a student that's been there for maybe two or three weeks ahead of them. So they're kind of in a similar boat. But they'll be working together as if they were on, let's say, your first year on the job when you have to train and it's only for like the next three weeks. Until you get proficient enough to either work on your own or to give you another student yourself [to train].

According to staff, peer teaching helps instructors manage open enrollment,

because it's very difficult obviously when people come in at different levels to keep track of everyone and assess everybody's needs for that moment. So it kind of helps bridge that gap and make someone else accountable for someone else's progress in the program.

This model also "reinforced" learning by having students teach the material to others.

Finally, peer teaching simulates a real-world work environment:

Because ultimately when you go out into a job, you are not going to get paired up with a special trainer who is going to train you for the first week. You're going

to be paired up with a coworker. So one, they learn how to socialize with people when they're new and two, they learn how to train other people.

JARC staff believed that peer teaching cultivated “workplace behaviors of working and teamwork and the ability to adapt to a new personality that you’re working with.”

### *Paid internship*

The paid internship at the Braman Automotive Training Center (through Lindsey Hopkins) had a high job placement rate. Although the program required a secondary degree, the model of an on-site, paid internship with an employee partner could be adapted to other occupational sectors with lower educational requirements.

## IMPLICATIONS

### ACCESS TO AND PROGRESSION THROUGH CAREER PATHWAYS

Providers need to ensure that English learners, adults without a high school degree, and students with lower test scores can access substantive CP classes and that there is a clear progression—a pathway—from entry-level basic skills classes to higher-level CTE classes. Multiple entry points are needed so that adults with skills gaps and lower education levels can enroll in CP classes. Bridge classes are one such strategy (see CLASP, 2013c; Estrada & DuBois, 2010; ICCB, 2012).

Minimum threshold requirements may hinder the adults who most need career pathways from accessing these services. As such, providers should consider what entry requirements are needed to understand the course material, complete the program, and prepare for postsecondary education or employment. Exit requirements may be a viable alternative, depending on the curricular content and program goals.

Similarly, programs should track whether and how entry-level students are advancing through the course sequence, from ESL, ABE, or GED® classes to higher-level CTE classes.

### SUPPORT SERVICES

Wraparound support services are essential for helping students enroll and persist in CP programs. These services not only mitigate key barriers such as transportation and child care, but also mental and physical health, housing, food, and financial concerns, among others. Providing support services decreases the cognitive load of poverty and increases students’ mental bandwidth for focusing on their education. Programs should also ensure that counselors, coaches, case workers, and other support staff have manageable caseloads.

Bundling support services appears to be an effective way to meet students' needs and enhance their financial stability, particularly through screening for income supports, financial coaching and literacy, job coaching, and access to financial services and credit-building products.

Funders and policy makers should consider increased funding for support services that address students' non-academic concerns. These supports should help increase persistence and program completion, thus enhancing program outcomes.

## OUTCOME MEASURES

For pathways to be effective, organizations need measures that capture interim outcomes toward longer-term goals such as completing a degree or obtaining a job. Interim outcomes are especially important for showing the achievements of students with greater barriers to education or employment (CLASP, 2014). Policymakers and funders should support the development and use of interim outcome measures.

The finding that there were no shared measures or "performance metrics" (CLASP, 2014) within or across cities underscores the need to identify a few basic measures that can demonstrate CP outcomes, thereby showing "collective impact" (Kania & Kramer, 2011; Kramer, Parkhurst, & Vaidyanathan, 2009). Two impediments are that agencies often have diverse funders, each with differing outcome measures, and that agencies have different goals. Thus, a college transition program is less likely to measure employment outcomes, and a job placement program is less likely to measure postsecondary outcomes. Nevertheless, to demonstrate collective impact of CP programs, shared measures are needed.

Policymakers and funders should ensure that accountability measures do not unintentionally incentivize programs to serve students who can transition more quickly to postsecondary study or employment—that is, adults with more work experience, higher test scores, higher levels of formal education, no criminal history, and so on. Also, timelines and expectations for goal attainment need to reflect students' abilities and situations, such as immigrants who have never worked in an English-speaking environment, ex-offenders, or chronically unemployed adults.

## CP COORDINATION

Research participants underscored the value of existing mechanisms for coordination such as literacy coalitions and grantee networks. Overall, macro-level (citywide) coordination involving diverse institutions was limited. To minimize problems such as gaps in services, duplication, and competition for students, funders and policy makers can support the creation of groups, events, or initiatives that help CP providers coordinate their efforts.

Under WIOA legislation, stronger coordination and relationships between workforce and adult education organizations are imperative. Our findings suggest that rifts can exist between providers, manifest in reluctance to refer clients or list adult education programs as approved providers. Funders and policy makers can play a key role in helping workforce and adult education entities collaborate to provide CP programs.

## **FUTURE RESEARCH**

The findings raise many questions for future research, including the following:

- Under what conditions do basic skills teachers need expertise in the target occupational sector?
- How can programs accurately determine the basic skill level (test score) or formal education needed to enter a given CP class or program?
- What are relevant interim outcomes for CP programs, especially those focusing on job placement?
- Do accountability measures influence the types of students that are enrolled?
- Do support services increase student retention, completion, and transitions?
- When are bundled versus voluntary support services more effective?
- What longitudinal employment, educational, and social outcomes are adult education CP programs achieving? What happens to adults after completing these programs?
- How can CP programs in urban areas best plan and coordinate across organizational types and funding sources at a citywide scale? How can teachers and staff at the program level be involved in informing macro-level CP planning and coordination?

Given the paucity of research on CP in adult basic education, we encourage more studies that focus on adults who face the greatest barriers to education and employment.



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## APPENDIX A: SURVEY QUESTIONS

Note: due to skip patterns, respondents did not answer all of the questions.

### Background information on organization

1. How would you classify your organization? (select one)
  - a. 4-year college or university
  - b. community college
  - c. technical school or college
  - d. community-based organization
  - e. library
  - f. K-12 school
  - g. school district
  - h. regional education center
  - i. workforce development organization
  - j. other (specify)
  
2. In all, how many students did your organization service in fiscal year 2014-15 or the most recent year for which you have complete data (across all adult basic education, GED®, literacy, and ESL programs)?
  
3. The Center for Law and Social Policy (CLASP) defines career pathways as follows: "The career pathways approach connects progressive levels of basic skills and postsecondary education, training, and supportive services in specific sectors or cross-sector occupations in a way that optimizes the progress and success of individuals—including those with limited education, English, skills, and/or work experience—in securing marketable credentials, family-supporting employment, and further education and employment opportunities." According to this definition, do you consider your organization to offer career pathways services? (yes/no/being developed but not currently offered)
  
4. Which of the following services are currently offered by your organization? (yes/no/being developed but not currently offered)
  - a. classes, services, or regular activities to assist students in transitioning to postsecondary education (e.g., computer, academic skills, or bridge courses)
  - b. classes, services, or regular activities that combine basic skills and career-technical education content (e.g., I-BEST, Integrated Education and Training)
  - c. career exploration or awareness classes, services, or regular activities
  - d. employability or work readiness classes, services, or regular activities
  - e. classes or services that enable students to obtain a high school or GED® diploma

- f. job development services (e.g., job interviewing and searching, job placement)
  - g. English as a Second Language classes
  - h. classes or services that enable students to obtain a postsecondary or stackable credential
  - i. classes required for completion of a short-term certificate program needed for advancement in education or employment
  - j. classes that result in an industry-recognized credential
  - k. classes that lead to specific employment opportunities
  - l. apprenticeships
  - m. internships
  - n. other types of education, training, services, or regular activities that prepare students to be successful in secondary or postsecondary education (specify)
  - o. other types of education, training, services, or regular activities that prepare students to enter or advance in employment (specify)
5. Do you have a formal mechanism for transitioning adult education students to the next step of their career pathway, such as employment, training, further education, credential? (yes/no/in development)
- a. career counselor
  - b. written agreement/MOU
  - c. formal referrals
  - d. bridge classes or programs
  - e. transition coordinator
  - f. other mechanisms
6. Please indicate if you have or are developing intentional career pathways for each of the following areas. (yes/no/in development)
- a. Agriculture and natural resources
  - b. Arts, media, and entertainment
  - c. Building trades and construction
  - d. Education, child development, and family services
  - e. Energy and utilities
  - f. Engineering and design
  - g. Fashion and interior design
  - h. Finance and business
  - i. Health and medical technology
  - j. Hospitality, tourism, and recreation
  - k. Information technology
  - l. Manufacturing and product development
  - m. Marketing, sales, and service

- n. Public services
- o. Transportation
- p. Other (specify)

7. Do you formally assist students in developing their own, individualized career pathway plan? (Yes/no/in development)

*If they checked "yes" or "in development" for any item in #3 or #4, the following statement will appear: "For the purpose of this survey, the items you selected are considered 'career pathways programming.' Students participating in these services are considered career pathways students." Respondents answered the remaining questions only if they said "yes" to #3 or any item in #4. If they checked "no" for all items in #3 and #4, they answered no further questions.*

8. For each item checked "yes" in #4: Are there threshold grade level, test score, or language requirements for participating in this program? (yes/no/unsure)

Student characteristics. All data refer to most recent fiscal year (2014-15).

9. In fiscal year (FY) 2014-15 or the most recent year for which you have complete data, how many students in all (unduplicated) were enrolled in these career pathway services?

- a. classes, services, or regular activities to assist students in transitioning to postsecondary education (e.g., computer, academic skills, or bridge courses)
- b. classes or services that enable students to obtain a postsecondary or stackable credential
- c. classes required for completion of a short-term certificate program needed for advancement in education or employment
- d. classes that result in an industry-recognized credential
- e. apprenticeships
- f. internships

10. You indicated that your organization provides [list of services checked as "yes" in #4]. Which types of students participated in these career pathway services in FY 2014-15? (yes/no/unknown)

- a. immigrants/non-native English speakers
- b. adults who struggle with basic skills (literacy and/or numeracy)
- c. parents or caregivers
- d. out-of-school young adults
- e. dislocated workers
- f. unemployed or underemployed persons
- g. veterans
- h. inmates in correctional facilities
- i. ex-offenders

- j. homeless persons
- k. adults with disabilities
- l. other (specify)

11. Respondents were asked to provide demographic information for CP students, including the number and percentage for each category below. They were able to enter the data manually, upload a spreadsheet, or upload anonymized student data. For those entering the data manually, there was an “unknown” option.

- a. race/ethnicity – applies ONLY to students who are US-born
  - a. White
  - b. Hispanic
  - c. Black
  - d. Asian
  - e. American Indian/Alaska Native
  - f. Native Hawaiian/Other Pacific Islander
  - g. Other
  - h. Unknown
- b. foreign-born
- c. sex (male/female)
- d. education:
  - a. no high school diploma or equivalent
  - b. high school diploma or equivalent
  - c. some college/no degree
  - d. postsecondary degree
  - e. postgraduate degree
- e. receive public assistance (TANF, SNAP, SSI, etc.)
- f. employment status
  - a. employed
    - i. if employed: part-time or full-time
  - b. unemployed
  - c. unknown
- a. National Reporting System functional level or grade level equivalent
  - i. Adult Basic Education (ABE)
    - 1. Beginning ABE Literacy (grade level 0-1.9)
    - 2. Beginning Basic Education (grade level 2-3.9)
    - 3. Low Intermediate Basic Education (grade level 4-5.9)
    - 4. High Intermediate Basic Education (grade level 6-8.9)
    - 5. Low Adult Secondary Education (grade level 9-10.9)
    - 6. High Adult Secondary Education (grade level 11-12)

- ii. English as a Second Language
  - 1. Beginning ESL Literacy
  - 2. Low Beginning ESL
  - 3. High Beginning ESL
  - 4. Low Intermediate ESL
  - 5. High Intermediate ESL
  - 6. Advanced ESL
- g. total hours enrolled [average]
- h. duration of enrollment (in weeks) [average]
- i. student classification
  - a. ABE
  - b. GED®
  - c. ESL
  - d. Other

Program design and delivery

12. Do you offer career pathways services jointly with any of the following organizations? Note: this does not mean the site where services are offered, but whether this organization is involved in delivering services. (yes/no/currently being developed)
- a. workforce investment system organization (e.g., Workforce Investment Board, One-Stop Career Center)
  - b. technical school
  - c. community college
  - d. employer
  - e. library
  - f. community-based organization
  - g. faith-based organization
  - h. social service agency
  - i. economic development organization
  - j. correctional institution
  - k. independent consultant
  - l. industry association
  - m. K-12 school district
  - n. union or union affiliate
  - o. university or other four-year institution
  - p. other (specify)



13. In FY 2014-15, where did funding for your career pathways programming come from? (yes/no/unsure)

- a. federal government
- b. state government
- c. local government
- d. employers
- e. private foundations
- f. student tuition
- g. fundraisers
- h. other (specify)

14. Which instructional approaches or models are used in your career pathways programming? (yes/no/currently being developed)

- a. contextualized learning (basic skills are offered in the context of career-technical topics or education)
- b. transition/bridge programs
- c. co-enrollment with your program AND a community college or other postsecondary institution
- d. concurrent enrollment (students are enrolled simultaneously in language/basic skills and training courses)
- e. workplace learning (e.g., on-the-job training, basic skills instruction offered at the workplace, workplace ESL)
- f. work-based learning (contextualized instruction that builds skills within the context of common work-related situations and real workplace problems, or uses actual workplace materials)
- g. pure online or distance education (all instruction and activities delivered at a distance)
- h. blended online or distance education (some instruction and activities delivered face-to-face and some online/distance)
- i. other (specify)

15. Are these types of classes part of your career pathways programming? (yes/no/currently being developed)

- a. adult basic literacy education (e.g., adult basic education, adult secondary education, adult literacy)
- b. native language literacy (e.g., Spanish literacy)
- c. family literacy
- d. functional literacy (e.g., financial, health)
- e. ESL
- f. Other (specify)

16. Which of the following support services are currently available to CP students? (yes/no/currently being developed)

- a. case management
- b. transportation assistance
- c. child care
- d. financial support provided by your organization (e.g., scholarships, fee waivers, tuition assistance)
- e. financial aid advising and application support
- f. tutoring or other academic support (e.g., study skills classes)
- g. college navigation support
- h. career counseling or planning
- i. job search assistance or job placement activities
- j. veterans services
- k. disability services
- l. flexible scheduling (e.g., non-semester-based, open enrollment)
- m. alternative class times and locations (e.g., evening classes)
- n. credit for prior learning
- o. earn college or course credit
- p. other (specify)

17. To your knowledge, are there any venues for career pathways coordination and planning *across organizations* in your city? (yes/no; if so, briefly describe)

- a. If yes:
  - i. Does your organization currently participate? (yes/no)

18. In your city, how effectively do organizations work together to avoid duplicating career pathways services? (very effective, somewhat effective, somewhat ineffective, very ineffective)

19. In your city, how effectively do organizations work together to determine and fill gaps in career pathways services? (very effective, somewhat effective, somewhat ineffective, very ineffective)

#### Data collection systems and outcome measures

20. Does your organization specifically track data on career pathways students, as distinguished from other adult education students? (yes/no/don't know)

21. For your career pathways students, does your program measure: (yes/no)
- a. educational gains measured by teacher- or program-created assessment or rubric (if yes: if you used a locally derived measure, what was it?)
  - b. educational level gains (e.g., gaining 1 or more educational levels on the Tests of Adult Basic Education, CASAS, BEST Plus, or other standardized assessment)
  - c. obtaining a high school diploma or equivalent (GED®)
  - d. completing a developmental/remedial course in postsecondary institution
  - e. completing a postsecondary-level pathway course
  - f. completing a postsecondary-level math or English course
  - g. re-enrollment in pathway course in subsequent term
  - h. pathway credit accumulation (specify program's benchmark, i.e., how many college credits per semester or quarter)
  - i. attaining a career pathway credential (e.g., certificate, diploma, license, industry certification, apprenticeship certificate)
  - j. attaining a pathway Associate degree
  - k. transition or transfer to technical school or college
  - l. transition or transfer to 2- or 4-year educational institution
  - m. initial employment
  - n. promotion in employment
  - o. employment in industry sector targeted by student
  - p. employment retention
  - q. entry-level wage or salary
  - r. changes in income from wages or salary (pre/post pathway)
  - s. other (specify)
22. For every item in question #21b-r with a "yes" response: How are these data collected?
- a. self-report without verification
  - b. self-report with verification (e.g., documentation from employer or postsecondary institution)
  - c. reported by employer or postsecondary institution, collected by state or federal government agencies (e.g., Bureau of Labor Statistics).
23. How well do these measures capture the gains and achievements of students with the weakest...
- a. academic skills? (very well, quite well, not very well, not well at all)
  - b. English language skills? (very well, quite well, not very well, not well at all)
  - c. employment skills? (very well, quite well, not very well, not well at all)

### Aggregate CP student outcomes

24. Based on skip logic from the outcome measure items in #21, respondents were asked to report aggregate outcomes for FY 2014-15. They were able to enter this manually, upload a spreadsheet, or upload anonymized student records.
- a. name of standardized test(s); N and average educational level gain
  - b. N and % who obtained a high school diploma or equivalent (GED®)
  - c. N and % who completed one or more developmental/remedial courses in postsecondary institution
  - d. N and % who completed one or more postsecondary-level pathway courses
  - e. N and % who completed a postsecondary-level math or English course
  - f. N and % who re-enrolled in one or more pathway courses in subsequent term
  - g. N and % who accumulated pathway credits (specify program's benchmark, i.e., how many college credits per semester or quarter)
  - h. N and % who attained one or more career pathway credentials (e.g., certificate, diploma, license, industry certification, apprenticeship certificate)
  - i. N and % who attained a pathway Associate degree
  - j. N and % who transitioned or transferred to technical school or college
  - k. N and % who transitioned or transferred to 2- or 4-year educational institution
  - l. N and % who obtained initial employment
  - m. N and % who obtained employment in the industry sector targeted by student
  - n. N and % who were promoted in employment
  - o. N and % who retained their employment; indicate how many months qualify as "retention"
  - p. N and average entry-level wage or salary
  - q. N and average gain or loss in income from wages or salary (pre/post pathway)
  - r. Other (specify) – provide N and % or average for each outcome

### Additional items

25. Identify the adult education program(s) in your city that offer(s) the most successful CP programming. In 2-3 sentences explain why this is exemplary CP programming.
26. Additional comments about CP in your organization or city (open-ended).
27. If you have any additional comments about the survey or the broader research study, please write them in the box below.

Information about respondent (name, organization, contact information)

## APPENDIX B: OTHER TYPES OF SERVICES

The following are verbatim<sup>60</sup> comments about “other types of education, training, services, or regular activities that prepare students to be successful in secondary or postsecondary education.” Some of these services (e.g., GED®, ESL classes) should not have been marked “other” because they were included in another survey question.

Type of Service	N
Microsoft Word, Excel 2010, customer service and & sales (NRF) certifications / computer skills / computer literacy / computer literacy	4
Adult basic education	3
Citizenship class / civics classes / English and civics for U.S. citizenship	3
Literacy classes / literacy education / reading and spelling instruction	3
Mentorship program / student mentoring / mentoring	3
English as a second language / ELL [English language learners]	2
Financial literacy	2
High school diploma / GED®	2
Vocational preparatory instruction / vocational	2
Academic	1
Articulation agreements	1
Baking and pastry program	1
Bridge from ELA to GED® class	1
Career / education advising	1
Compass and Accuplacer [college placement test] preparation	1
Distance learning classes	1
Field trips, career fairs, tours, ELCATE [English Literacy for Career and Technical Education], AAAE [Applied Academics for Adult Education]	1
Job coaching	1
Medical classes such as CNA, phlebotomy technician, patient care technician, basic anatomy and physiology, medication aide, etc.	1
Parenting / conflict resolution	1
Pre-GED®	1
Quality of life	1
Remediation, testing accommodations	1
SJS internship program focused on improved skills for part-time employees working with SJS youth in our after school program. Many are in high school or first year of college	1
Success management academy (SMA-GED® in Spanish)	1
Tutoring	1

The following are verbatim comments about “other types of education, training, services, or regular activities that prepare students to enter or advance in employment.” Some of these services (e.g., GED® and ESL classes) should not have been marked as “other” because they were already included in this survey question.

Type of Service	N
Bridge / college to careers pathway strategy / transportation bridge program / transitional job program / career pathway training / I-Pathways	6
Workforce skills training / job readiness / job readiness and workforce literacy / work ready / college and career readiness	6
Basic computer/ computer training / basic computer literacy to perform in a business setting at a higher level therefore to earn more with the new workforce skills we teach.	3
Wellness classes / health promotion / nutrition and health awareness	3
Financial coaching, income supports / financial literacy	2
Job fairs, employer presentations and forums / career fairs, expos, CP seminars	2
On-site employment counselors / case worker assistance	2
Audio engineering	1
Bank teller trainings	1
Citizenship classes	1
College and university educational tours for career exploration	1
Community partnerships, career and technical programs	1
Externship, onsite services cosmetology, dental, child care, mechanic	1
G.E.D.	1
Industry-specific literacy assistance when desired by the student	1
Industry-specific training (i.e., Toyota/Lexus, Acura/Honda, Maytag appliance, South)	1
Medical classes, such as CNA, phlebotomy technician, patient care technician, basic anatomy and physiology, medication aide, etc.	1
Men’s mentoring program	1
On-the-job training	1
Parenting/conflict resolution	1
SJS internship improving part-time staff’s skills in technology, planning, youth work curriculum, health and fitness, job readiness, resume/interviewing skills and spirituality to increase responsibilities and income at SJS or create a pathway for more gainful employment outside of SJS.	1
The library has a partnership with CareerSource South Florida, where representatives are available to assist with career needs.	1
Vocational	1

Weekly vocational groups with different topics and guest speakers geared toward assisting students with everyday opportunities.	1
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## APPENDIX C: OTHER TYPES OF ADULT EDUCATION PROGRAMMING

The following are verbatim comments about other kinds of adult education programming offered by agencies.

Types of Class	N
Computer literacy / digital literacy	2
Citizenship class	1
Note, we do not consider ESL part of career pathways, however this is not clear in the survey...the survey asks for numbers of ESL, not ESL as a "pathway," including topics for work or info on students who state they take English for employment purposes	1
Parenting	1



## APPENDIX D: OTHER MECHANISMS FOR TRANSITIONING STUDENTS

The following are verbatim comments about other mechanisms for transitioning students to the next step in their career pathway.

Other Mechanisms	N
Partnerships: community-based partnerships / informal partnerships with vocational institutions / We have a partnership with American Intercontinental University (AIU). One of our goals is for the GED® students to enroll at AIU to earn a Bachelor's degree. We have another partnership with Construction Citizen and when students have experience in construction crafts or are interesting in pursuing on, we refer them with them. / Biscayne Landing-Oleta Partnership	4
Resume preparation, employment coaching, and job search assistance: volunteer job coaches who assist with resume, interviewing and job-search strategy / We teach how to prepare a good resume and send our graduates and students information we receive about better paying job opportunities. / We have a financial opportunity center that provides career readiness assistance and employment coaching. / Board members provided informal career help and referrals. Interns participants get weekly guidance on career path counseling by director of SJS education programs	4
Agency staff enter jails to engage offenders in post-release services	1
Basic referrals to other organizations	1
Business leadership council comprised of executives from various corporations, who advise [XX] on market trends	1
Currently the program manager performs all the positions mentioned above	1
Educators	1
I-BEST integrated vocational and basic skills certificate program	1

## APPENDIX E: OTHER OCCUPATIONAL SECTORS

The following are verbatim comments about other occupational sectors in which agencies have intentional career pathways.

Occupational Sector	N
Human services	2
Adult general education and GED® prep classes preparing students for obtaining a GED®, and introduction to career opportunities and programs offered by XX county adult education.*	1
Barista, retail and developing food prep and food service [ <i>Note: the respondent should have checked the "hospitality, tourism, and recreation" category in a previous survey question</i> ]	1
Cosmetology	1
General job search and workplace skills training*	1
Office administrative assistant	1
We teach our students (adults) how to be good role models for their children, motivating them not to drop out from school and to encourage them to go to college.*	1
While we intend to develop an intentional career pathways, we are still researching and conducting community needs assessments to determine what area that would be in.*	1

\*does not qualify as an intentional career pathway in a specific occupational sector

## APPENDIX F: OTHER TYPES OF STUDENTS

The following are verbatim comments about the other types of students served.

Comment	N
Co-occurring disorders	1
Individuals trying to get into other industries	1
Minorities (Hispanics, African-Americans, and Asians, among other ones)	1
Offenders on probation	1
Refugees	1
Victims of domestic abuse	1

## APPENDIX G: OTHER RACIAL/ETHNIC GROUPS

The following are verbatim comments about other racial/ethnic groups.

Comment	N
Multiracial	3
Arabic	1
Birth place unknown	1
Indian	1
Legal immigrants	1
Migrant/farmworker	1
Refugees (Bhutanese/African)	1
Russian or other	1
Stated "other" or "mixed"	1
The data for question 10a will be provided under separate cover.	1
None of our students are U.S. born	1

## APPENDIX H: OTHER CP PARTNERS

The following are verbatim comments about other CP partners.

Comment	N
Apartment complex	1
Harris County Department of Education	1
Texas Workforce Commission	1
[The agency] has a partnership with CareerSource South Florida	1

## APPENDIX I: OTHER FUNDING SOURCES

The following are verbatim comments about other funding sources.

Comment	N
COH Grant	1
Dade County Public Schools	1
Houston Center for Literacy	1
Houston Literacy	1
Local funder	1
Unrestricted funds of the organization, United Way	1
WIOA Career Source - local workforce	1

## APPENDIX J: OTHER INSTRUCTIONAL APPROACHES

The following are verbatim comments about other instructional approaches.

Comment	N
CareerSource South Florida provides career assistance in person to those who visit the library	1
Orton-Gillingham based instruction, small classes	1
Princeton Review	1

## APPENDIX K: OPEN-ENDED COMMENTS ABOUT OUTCOME MEASURES

### STANDARDIZED INSTRUMENTS USED TO MEASURE EDUCATIONAL LEVEL GAINS

Comment	N
TABE (Tests of Adult Basic Education)	23
BEST (Total)	16
<ul style="list-style-type: none"> <li>• BEST Plus</li> </ul>	7
<ul style="list-style-type: none"> <li>• BEST [did not specify BEST Plus or BEST Literacy]</li> </ul>	5
<ul style="list-style-type: none"> <li>• BEST Literacy</li> </ul>	4
CASAS (Comprehensive Adult Student Assessment Systems)	6
GED® scores or test results	2
Diagnostic screening test for reading, diagnostic screening test for math, learning efficiency test	1
SORT (Slosson Oral Reading Test)	1
NRS (National Reporting System) [Note: this is the federal reporting system, not an NRS-approved instrument.]	1
We use state-approved assessment tools.	1
WRAT (Wide Range Achievement Test)	1

### EDUCATIONAL GAINS MEASURED BY TEACHER- OR PROGRAM-CREATED ASSESSMENT OR RUBRIC

Comment	N
In-house testing and evaluations / in-house-created testing teacher-created tests / various teacher-made tests/ teacher-created assessment from Pearson's <i>Future English for Results</i> and <i>Side by Side</i> curriculum / [name of agency] Adult Literacy Assessment, [name of agency] Adult Literacy Oral Assessment	6
Final grade based on quiz, exam, and discretionary teacher scores / academic quizzes	2
Course-specific pre- and post-test	1
Curriculum-provided assessment	1
ICP [individual certification programs] or OCP [Oracle certification programs]	1
Improve basic literacy by 2 or more grade level	1
In each course we teach we are continuously measuring each student progress via "activities" that are graded by our online tutors. Each student has three chances to reach the best possible grade for each activity, after they get the results from the online tutor.	1



Individualized tutorial	1
Odysseyware	1
Pre- and post-testing and utilization of diagnostic screen tests	1
READ assessment	1
Specially designed testing for pre-literates	1
Survey	1
Test score and program completion	1

## OTHER STANDARDIZED INSTRUMENTS USED TO MEASURE EDUCATIONAL LEVEL GAINS

Comment	N
Burlington	1
COMPASS [college readiness]	1
Completed Pre-Post Work Readiness courses	1
DAISI [Data and Information System Illinois] – web-based data collection system of the Illinois Community College Board	1
Essential Education software	1
Future for English Curriculum Placement and Unit Testing used for measurement and assessments	1
In-house hiring opportunity	1
Pre- and post-TABE vocational test	1
SORT	1
TEAMS [Texas Assessment of Minimum Skills]	1

# APPENDIX L: DEMOGRAPHIC CHARACTERISTICS OF CP STUDENTS IN CASE STUDY ORGANIZATIONS (2014-15)

Characteristic	City Colleges of Chicago	JARC	Alliance	AVANCE	Chinese Community Center	Lindsey Hopkins	Miami Dade College
Number of CP students (out of all adult ed students)	1,945 (30,611)	236 (236) <sup>2</sup>	36 <sup>3</sup> (449)	40 (340)	101 (571)	1,882 (4,483)	7,792 <sup>4</sup> (unknown)
Sex							
Men	33%	65%	83%	Data	34%	40%	41%
Women	67%	35%	17%	unavailable <sup>5</sup>	66%	60%	59%
Foreign-Born	Not measured <sup>6</sup>	3%	100%	Data	100%	80%	12%
U.S.-Born – Race/Ethnicity <sup>7</sup>			n/a	Data	n/a		
White	12%	28%		unavailable <sup>5</sup>		4%	3%
Black	38%	43%				13%	21%
Asian	10%	2%				0%	<1%
Hispanic	41%	22%				30%	76%
Other	<1%	3%				0%	0%
Employment Status			Data	Not measured	Not measured	n/a	Not measured
Employed FT	17%	19%	unavailable			n/a	
Employed PT	14%	28%				n/a	
Employed FT or PT <sup>8</sup>	n/a	n/a				46%	
Unemployed	68%	53%				54%	
Educational Attainment				Data	Not measured		Data
No HS/GED <sup>9</sup>	88%	28%	0%	unavailable <sup>5</sup>		86%	unavailable
HS/GED <sup>9</sup>	12%	44%	0%			12%	
Some college	0%	25%	6%			<1%	
Postsecondary degree	0%	8%	94%			2%	
Post-graduate degree	0%	<1%	0%			0%	

<sup>1</sup> Includes classes to transition to postsecondary education, to obtain an industry-recognized credential, or to obtain a postsecondary or stackable credential; short-term certificate programs; internships; and apprenticeships. Does not include classes combining basic skills and CIE instruction.

<sup>2</sup> JARC did not include students the Adult Learners Programs and Services (ALPS) literacy tutoring.

<sup>3</sup> Alliance appears not to have included CNA students in the tally. Most CNA students were women. AutoCAD, PDMS, and CDL students were predominantly men.

<sup>4</sup> The FICAPS goal was 30 students. The data provided include students in other CIE classes.

<sup>5</sup> AVANCE did not provide disaggregated data for CP students (i.e., GOSS). All GOSS students had a high school degree, and nearly all were Latina women.

<sup>6</sup> Since CCC does not ask about immigration status, all students were counted as U.S.-born.

<sup>7</sup> The American Indian/Alaskan Native and Hawaiian categories were omitted due to low numbers (13 across all case study organizations).

<sup>8</sup> Miami-Dade County Public Schools use only two categories: employed or not employed.

## ENDNOTES

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<sup>1</sup> We chose to use the CLASP definition because it was the best available at the time. It is also shorter and less restrictive than the Workforce Innovation and Opportunity Act (WIOA) definition, which allowed us to capture a wide range of CP programming. (See the WIOA definition at <https://community.lincolns.ed.gov/document/workforce-innovation-and-opportunity-act-career-pathways-definition>). In addition, the WIOA definition was very recent at that time and was not being widely used to guide programming.

<sup>2</sup> The final eligible sample included 147 agencies: those that completed a partial or full survey, declined to participate, or did not respond. Twenty other agencies were deemed ineligible because they no longer offered adult education services (the program closed), they only provided wraparound services but no adult education services, or they did not offer career pathways. Seventeen agencies were classified as “other” because one entity (community college or school district) collects and reports data for all of the sites or campuses. To avoid duplicative data, these sites and campuses were not included when calculating the response rate. Given the city partners’ knowledge of the other non-responding agencies, we surmise that many of them did not complete the survey because they do not offer CP programming.

<sup>3</sup> The percentage of community colleges is small in part because the City Colleges of Chicago and Miami Dade College submitted one survey for all of their campuses.

<sup>4</sup> Chi-square analyses were used to determine statistical significance throughout this report. For questions with “yes,” “no,” or “in development” responses (e.g., types of services offered), “no” and “in development” were combined. That is, statistical analyses compared agencies that said “yes” with those that said “no” or “in development.” For questions with “yes,” “no,” or “unsure” responses (e.g., funding sources), “no” and “unsure” were combined. To analyze differences between agencies that offered CP versus those that did not or were developing CP, we combined “no” and “in development” into one category. The Chi-square test analyzes whether the observed counts (number of respondents answering a survey question in a particular way) are due to chance. When the differences between the observed and expected counts are large enough, then the Chi-square test is statistically significant. For instance, we expect that respondents from Chicago, Houston, and Miami will answer questions (proportionally) in the same way. When the Chi-square statistic is statistically significant, it means that it is unlikely that the differences are due to chance. The p-value indicates the size of that likelihood – that is, a 5%, 1%, or .1% probability that the differences are due to chance.

<sup>5</sup> The library provided the following explanation for this figure: “The [name of city] Public Library provides a variety of services to the public at 44 public service locations located throughout the [city] area. In 2014-15, we had close to 4 million visitors to our facilities, and 2.5 million visitors to our website. The 127,677 adult education students we reported does not represent all Library patrons, nor does it represent the number of attendees at Library programs overall. The numbers we submitted represent the career-pathway services utilized at all of our locations. Of those reported, some participated in literacy-related education, some in technology-related education, some in direct job skills/workforce-related, and some in education-supportive services. We also offered students programs to develop or improve additional non-technology related skills and knowledge such as Spanish language classes, citizenship classes, reading classes, and interview prep seminars.

<sup>6</sup> For this question, CP students included those participating in: (1) classes for transitioning to postsecondary education; (2) classes that enable students to obtain a postsecondary or stackable credential; (3) classes required for completion of a short-term certificate program needed for advancement in education or employment; (4) classes that result in an industry-recognized credential; (5) apprenticeships; and (6) internships.

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<sup>7</sup> We found numerous inaccuracies in student demographic data for each of the categories. For example, respondents were asked to report race/ethnicity only for U.S.-born students, but some included race/ethnicity of foreign-born students, thus leading to inaccurate percentages. In addition, in some cases the total numbers reported for various categories (e.g., gender, educational attainment, employment status) did not add up to the number of CP students reported earlier in the survey. For instance, one agency reported serving 325 adult learners, yet also reported that 92 were men and 219 were women, for a total of 311. In such cases, we identified the discrepancies and asked respondents to provide corrected data. Many respondents provided corrected data; others did not respond to multiple requests. To calculate the percentages, we used the denominator for the category we analyzed. For example, for the aforementioned agency that reported 92 men and 219 women, we used 311 as the denominator, not 325. We drew several lessons from this experience. (1) Some adult education providers do not collect demographic data on one or more of the categories above. (2) If they do collect demographic data, they may not know how to locate and report it or how to report it for a sub-set of their students (e.g., CP participants). (3) Staff turnover hinders the ability to locate and report demographic data to outside entities such as researchers. (4) Many adult education providers don't have the resources to hire staff who can oversee data collection and analysis.

<sup>8</sup> Twelve agencies had errors in the data for this question. In these cases, the main problem was that N foreign-born + N race/ethnicity did not add up to the total number of CP students they reported serving. Although we asked only for race/ethnicity for U.S.-born students, some agencies included foreign-born students in their race-ethnicity data, meaning that those students were double-counted. Consequently, Hispanic students may be somewhat over-represented in the U.S.-born race/ethnicity data.

<sup>9</sup> The answers for three programs were deleted because they were obviously incorrect (e.g., average enrollment of 71,024 hours) and the programs did not provide corrected figures.

<sup>10</sup> The case studies revealed that these requirements include minimum reading and math scores on the TABE, minimum English language test scores, and/or having a high school or GED<sup>®</sup> diploma, among others.

<sup>11</sup> These terms were defined in the survey as follows:

- contextualized learning (basic skills are offered in the context of career-technical topics or education);
- co-enrollment with your program AND a community college or other postsecondary institution;
- concurrent enrollment (students are enrolled simultaneously in language/basic skills and training courses);
- workplace learning (e.g., on-the-job training, basic skills instruction offered at the workplace, workplace ESL);
- work-based learning (contextualized instruction that builds skills within the context of common work-related situations and real workplace problems, or uses actual workplace materials);
- pure online or distance education (all instruction and activities delivered at a distance); and
- blended online or distance education (some instruction and activities delivered face-to-face and some online/distance).

<sup>12</sup> The only comment related to "other" support service was "gender-separated classes for cultural sensitivity."

<sup>13</sup> "Collecting data on the interim outcomes for participants in career pathway programs enables instructors, staff, and administrators to gauge participant progress toward credential attainment" (CLASP, 2013b, p. 6).

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<sup>14</sup> We analyzed the sub-set of 53 agencies that received federal funding. Two of these agencies indicated that they did not measure educational functioning level gains, even though this is a federal requirement under the Adult Education and Family Literacy Act (AEFLA). We could not determine whether this was an error on their part or whether they receive federal (non-AEFLA) funds that do not require measuring level gains. The other measures used by two-thirds or more of federally funded agencies were obtaining a high school or GED® diploma (76%), obtaining initial employment (72%), and attaining a CP credential (67%).

<sup>15</sup> Miami accounted for a disproportionate share of the “unsure” responses. Between 10% and 29% of Miami respondents marked “unsure” for nine of the 19 outcome measures. In addition, explanatory comments on the teacher- or program-created assessment question revealed that many of these were not, in fact, created by teachers or programs. Some respondents wrote the names of tests, such as the TABE and CASAS, used to measure educational functioning level gains, and had also checked “yes” for that question. In these cases, the answer for “teacher- or program-created assessments” was changed to “no.” Other respondents wrote the names of assessments that were created by state systems (e.g., Texas Assessment of Minimum Skills, Data and Information System Illinois), textbook publishers, or other commercial entities (e.g., Essential Education software, Future for English curriculum placement and unit testing, COMPASS college placement testing). These responses should have been captured under the “other” category. In these cases, the answer for “teacher- or program-created assessments” was changed to “no” and the “other” category to “yes.”

<sup>16</sup> For example, when reporting the percentage of students who obtained a high school or GED® diploma, an agency could decide to use several different denominators: the total number of adult learners, the total number of students who did not already have a high school/GED® diploma, the total number of students enrolled in GED® classes, the total number of students who took the GED® Tests, etc. Each of these options would yield a different answer for the percentage of students who obtained a high school equivalency degree. Although we attempted repeatedly to clarify all the data discrepancies and determine which denominators were used to calculate the percentages, some agencies did not respond to these requests.

<sup>17</sup> There are many other exemplary programs that we were unable to include. For instance, Instituto del Progreso Latino’s *Carreras en Salud* program has already been documented in several national studies (e.g., Fein, 2016).

<sup>18</sup> For example, survey data showed that some organizations or campuses had a higher percentage of participants with a bachelor’s or graduate degree (most likely immigrants or refugees who obtained an advanced degree in their home country). Given our focus on adults with limited formal education, these organizations were excluded from consideration.

<sup>19</sup> The Addison location closed in July 2017. JARC opened a new location in Chicago’s Austin neighborhood February 2017.

<sup>20</sup> CNA, child development associate, computer-aided drafting and design, general office support specialist, internet support specialist, medical business office professional, welding technician, and commercial truck driver.

<sup>21</sup> <http://www.joycefdn.org/assets/images/ShiftingGearsEvaluationSynopsis.pdf>

<sup>22</sup> For more information about Career Foundations, see <https://womenemployed.org/story-career-foundations>.

<sup>23</sup> For more information about Gateway, see <http://www.ccc.edu/news/Pages/Gateway-Program-Redefines-Adult-Ed-to-Support-Transition-to-College.aspx>. The Gateway program includes one free credit course for both semesters: College Success and another course.

<sup>24</sup> For a list of Bridge occupational sectors at other campuses, see <http://www.ccc.edu/site/Pages/bridge.aspx>.

<sup>25</sup> In fiscal years 2012-17, 71% of the 1,885 Bridge students were women, 69% were black, 23% were Hispanic, and 54% were age 26 or older.

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<sup>26</sup> <https://womenemployed.org/pathways-careers-network>

<sup>27</sup> A CCC staff person explained, "There are textbooks that have healthcare math problems, as is the case in each [occupational] sector. In my experience, many of the healthcare problems were too advanced for the students, so I don't imagine instructors use them regularly. We will also be adopting career-contextualized math exercises to the curricula in FY18."

<sup>28</sup> This presentation summarizes JARC's model:

[http://www.bridgestocareeropportunities.com/files/Workforce%20-%20Creating%20Opportunity%20and%20Building%20Partnerships\\_JARC.pdf](http://www.bridgestocareeropportunities.com/files/Workforce%20-%20Creating%20Opportunity%20and%20Building%20Partnerships_JARC.pdf)

<sup>29</sup> Survey data for 2014-15 indicate that 3% of 236 students were foreign-born. Among U.S.-born students, 43% were black, 28% were white, and 22% were Hispanic. Fifty-three percent were unemployed.

<sup>30</sup> JARC has since expanded financial literacy services to Bridge students.

<sup>31</sup> The Center for Working Families is a national model developed by the Annie E. Casey Foundation. For more information on this model, see Hess et al. (2016) and Kaul et al. (2011).

<sup>32</sup> Throughout the report, "access to income supports" means that staff help students determine eligibility and apply for public benefits (e.g., food stamps, health insurance, Medicaid, rental and utility assistance, child care subsidies) and tax credits. This type of support is crucial because many families do not know that they are eligible for these services, all of which enhance socio-economic stability (McKean, 2002).

<sup>33</sup> Financial Opportunity Centers are a national model developed by the Local Initiatives Support Corporation (LISC). For more on FOCs, see Hess et al. (2016) and Rankin (2015).

<sup>34</sup> <http://www.careerinayear.com/braman-automotive-training-center-program/>

<sup>35</sup> According to Florida law, occupational completions points (OCPs) are competencies or skills associated with a career-technical education program in a particular occupation. Students can use OCP certificates to show employers that they have mastered a specific set of abilities, skills, and knowledge. For more information, see

<http://www.fldoe.org/core/fileparse.php/5398/urlt/ReportingOCP-TrainingModule-PowerPoint.pdf>

<sup>36</sup> Florida state law stipulates that the following students are exempt from tuition and fees in adult education and career-technical programs: co-enrolled or dual-enrolled high school students; apprentices; Road to Independence (aging out of foster care); residential Job Corp participants (categorized as homeless); and homeless students.

[http://adulted.dadeschools.net/AGE/Documents/UPDATED\\_Adult\\_and\\_Community\\_Education\\_Handbook-Updated\\_3-6-2017.pdf](http://adulted.dadeschools.net/AGE/Documents/UPDATED_Adult_and_Community_Education_Handbook-Updated_3-6-2017.pdf)

<sup>37</sup> The SAVES Refugee Program offers free tuition and other supports for adult refugees and asylees in the Miami area. <http://www.savesdadeschools.com/>

<sup>38</sup> <http://www.miamigov.com/grants/workforce.html>

<sup>39</sup> "Florida legislation mandates the development of statewide articulation agreements and requires the Florida State Board of Education to adopt the statewide articulation agreement by rule. Specifically for CTE, Florida State Board of Education Rule 6A-10.0401 also defines the Gold Standard Career Pathways Articulation Agreement. This articulation agreement provides credit transfer opportunities for CTE students who earn industry certifications to receive postsecondary CTE credits: "The purpose and effect of this rule development is to incorporate by reference all Gold Standard Career Pathways statewide articulation agreements based on industry certifications. Gold Standard Career Pathways articulation agreements guarantee individuals who have earned the industry certification specified in the agreement and enrolled in the specified associate degree program at a Florida College System institution will be awarded college credit in Florida as indicated in the agreement" (<https://www.careertech.org/florida>).



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<sup>40</sup> Instituto del Progreso Latino, one of the agencies that participated in the Chicago focus group, is well known for offering lower-level students access to CP programs, starting at the fourth-grade level on the TABE. A staff member stated, “Instituto has focused on transitioning lower literacy-level Latino adults and taking them from the general population and helping them to get into post-secondary. The niche that we occupy is just below post-secondary and will now include, in the fall [2016], also some post-secondary offerings.”

<sup>41</sup> Transcript excerpts have been edited for readability by removing some false starts, repetitions, grammatical errors, and fillers (e.g., like, you know, right, okay, um). To preserve each speaker’s style of speech, we did not remove linguistic reductions (e.g., gonna), alter African American Vernacular English, or correct grammatical errors.

<sup>42</sup> <http://www.fldoe.org/core/fileparse.php/5398/urlt/basic-skill-tap-att1.pdf>

<sup>43</sup> <http://hosted.verticalresponse.com/1516115/98c7c5b29b/>

<sup>44</sup> <https://www.mdc.edu/main/sas/parents/school.aspx>

<sup>45</sup> <http://www.fldoe.org/academics/career-adult-edu/career-technical-edu-agreements/>

<sup>46</sup> The design and implementation of this partnership created several other challenges. First, an adult education agency hadn’t received the CP class syllabi; consequently, the staff couldn’t provide any details about the course content during student recruitment and orientation. Second, the prescribed communication channels seemed complicated. For instance, the protocol for communicating students’ non-academic needs involved four steps: (1) the CTE teacher tells the student to call the project phone number at the community college; (2) the student calls the number; (3) the college contacts the CBO staff; and (4) a CBO staff member talks to the student. Finally, as noted earlier, there seemed to be little or no interaction between CTE and basic skills teachers, which limited their knowledge of each other’s courses.

<sup>47</sup> See Florida Statutes, Sec. 1004.93.

[http://www.leg.state.fl.us/statutes/index.cfm?App\\_mode=Display\\_Statute&URL=1000-1099/1004/Sections/1004.93.html](http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&URL=1000-1099/1004/Sections/1004.93.html)

<sup>48</sup> <https://www.floridashines.org/> “MyCareerShines is a comprehensive education and career planning system that will help you succeed in the increasingly competitive global economy. You will learn about yourself, discover the many options and opportunities for your future, and gain access to the information and tools to achieve your goals” (<https://www.floridashines.org/find-a-career/plan-your-future>).

<sup>49</sup> Although Miami providers did not discuss the EL Civics grant, city partner Mark Needle noted that Miami Dade College and some school district adult education programs offer seven levels of EL Civics and citizenship instruction, including College and Career Readiness. Likewise, the federal policy supporting integration of legal Cuban and Haitian immigrants has resulted in local programs that provide support resources to eligible students (e.g., SAVES in district programs and an equivalent program in Miami Dade College).

<sup>50</sup> City partner Mark Needle noted that the Florida CP system standardizes data across all state-funded adult education and CTE providers (including CBOs that use state funds), which allows for longitudinal data to be shared at the state level and across providers within a network. However, providers wanted to expand capacity for data sharing between the school district and Miami Dade College so that participants could be tracked longitudinally. Further research is needed to determine whether program-level CP teachers and administrators in a given city know about district- or state-level longitudinal data capabilities and are able to access and request data on their program participants.

<sup>51</sup> One Community One Goal (OCOG, see below) organizes these types of meetings for business and industry in Miami, but adult education programming is not a primary focus. This initiative was mentioned by one survey respondent, but none of the focus group participants or

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other research participants in Miami mentioned OCOG when discussing citywide CP coordination.

<sup>52</sup> [https://www.iccb.org/adult\\_ed/?page\\_id=30](https://www.iccb.org/adult_ed/?page_id=30)

<sup>53</sup> "The purpose of One Community One Goal is to provide Miami-Dade County with a roadmap for its future economic development success. It offers strategic recommendations aimed at creating an environment where significant job creation occurs with a focus on new higher-paying jobs in target industries. It is a community-wide effort that provides a unified vision for long-term economic growth in Miami-Dade County. Education has been identified as the foundation of One Community One Goal and is the key driver of the seven target industries" (<http://www.beaconcouncil.com/what-we-do/one-community-one-goal>).

<sup>54</sup> City partner Mark Needle reported that currently, coordination between these systems primarily entails selection of new programming or formal articulation between specific academic programs.

<sup>55</sup> Prior research also supports this conclusion. A study of Workforce Investment Act programs found that receiving support services was positively related to employment and earnings (Maxwell, Hock, Verbitsky-Savitz, & Reed, 2012). Among women who exited the Adult Program, 78% of those who received support services were employed one year later, versus 73% who did not receive these services. For women in the Dislocated Worker Program, these figures were 82% and 70%, respectively. In both programs, women who received support services earned more per quarter. Students who accessed public benefits through the Benefits Access for Community College Completion demonstration project had higher retention rates (75% versus 54%) and enrolled in more terms than comparison students (Hess et al., 2016). In addition, exploratory analyses gave "some credence to the idea that bundling several public benefits could make a real difference in student outcomes" (Price, Long, Quast, McMaken, & Kioukis, 2014, p. 24). Similarly, participants who received financial counseling at Financial Opportunity Centers and Center for Working Families sites, respectively, had higher job placement and retention rates (Rankin, 2015) and college degree attainment and job advancement, among other outcomes (Kaul et al., 2011). Research on other support services such as transportation and childcare shows similarly positive results (Hess et al., 2016).

<sup>56</sup> <http://www.lindseyhopkins.edu/financial-aid/financial-aid-resources/cost-of-attendance/>

<sup>57</sup> <https://www.careertech.org/florida>

<sup>58</sup> The healthcare curriculum is available from Women Employed: <https://womenemployed.org/sites/default/files/uploads/HealthcareBridge1.pdf>. Other curricula are also available: <https://womenemployed.org/adult-education-lesson-plans>

<sup>59</sup> <http://www.lindseyhopkins.edu/automotive-service-technology/>

<sup>60</sup> Comments have been edited to correct grammatical and punctuation errors, to standardize capitalization, and to remove identifying information such as the organization's name (unless they participated in the case study and gave permission to use the organization's name). Similar comments were grouped into categories.